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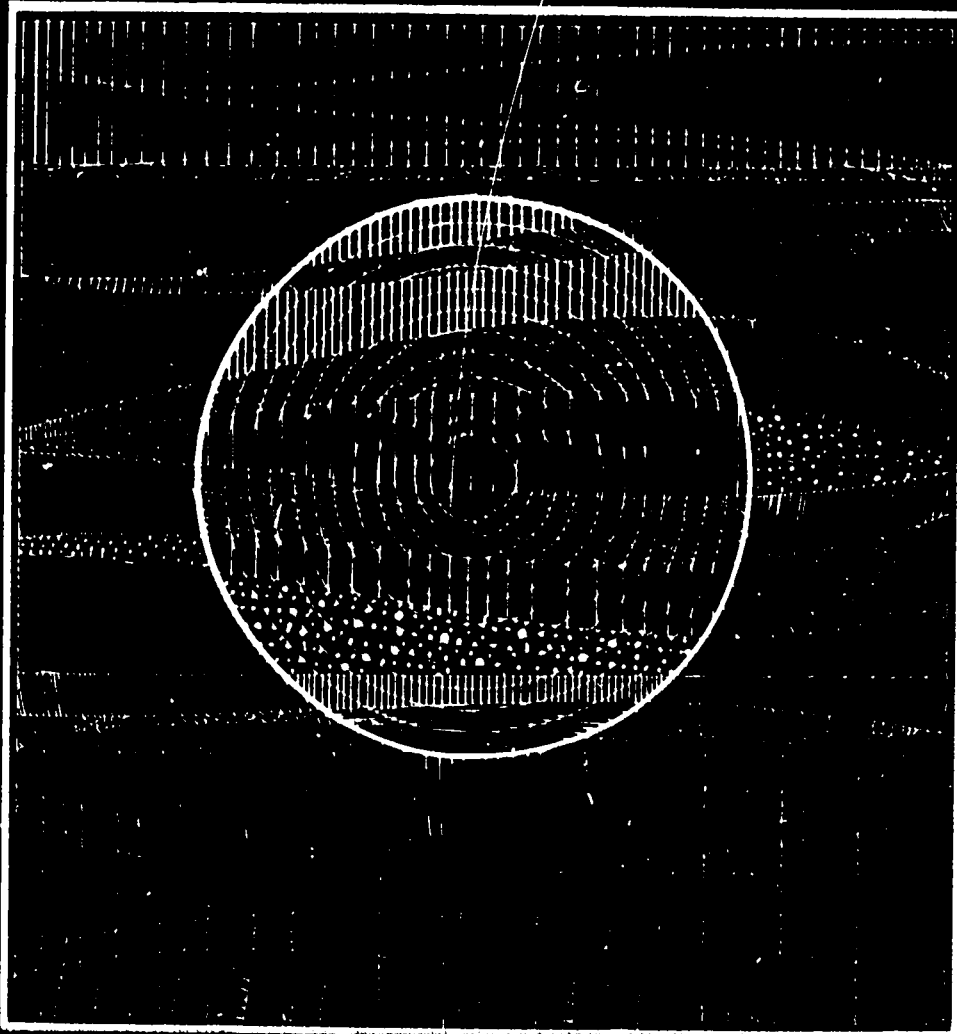
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ABSTRACT

A conference held to present and discuss new research findings and to consider strategy and tactics for stimulating systematic research on retirement as a normal phase of development is reported. The nine papers, seven of which are followed by discussion reports, presented at the conference are reproduced in this book. The papers and their authors are: "Background and Statement of Purpose" by Frances M. Carp; "Patterns of Psychological Health and Psychiatric Illness in Retirement" by Robert N. Butler; "Implications for Retirement of Recent Studies on Age and Working Capability" by R. Meredith Belbin; "Patterns of Retirement in San Francisco" by Donald L. Spence; "Frequency and Nature of Health Problems of Retired Persons; "Differential Patterns of Retirement by Social Class and Personal Characteristics" by Abram J. Jaffee; "Social and Psychological Factors in Adjustment in a Retirement Village" by Maurice B. Hamovitch; "The Allocation of Leisure to Retirement" by Juanity M. Kreps; and "Summary and Prospect" by Frances M. Carp, which describes several research topics that were judged to merit special attention. The conference concludes that the most pressing need is for systematic statements of the retirement process which will guide research toward the building of theory systems. (DB)

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The Retirement Process

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THE RETIREMENT PROCESS

Report of a Conference

December 1966
Gaithersburg, Md.

Frances M. Carp, Ph. D., *Editor*

National Institute of Child Health
and Human Development
National Institutes of Health
Bethesda, Md.

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
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Dedication

Ayers Brinser made a particularly stimulating contribution to the conference and to this volume in his emphasis on the positive value of retirement by defining it as a form of production. His formula for differentiating retirement from unemployment anticipates the next step toward systematic investigation of the retirement process—the development of conceptual models to guide investigation. Those who move ahead with this task will feel the loss of Dr. Brinser's keen insight, his readiness and capacity to cross disciplinary lines, his intense involvement with the task at hand, and his warm and generous self.

Acknowledgments

The men and women who participated in this conference and reported on its proceedings are among the busiest on earth. The conference was called with little notice, and the manuscript preparation schedule was a tight one. As taskmaster, I much appreciate the consistent cooperation, the unfailing good nature, and the capacity to find time in overcrowded schedules which were exhibited by every member of the group.

My special thanks go to Wilma Donahue, Ethel Shanas, Clark Tibbitts, and Walter Spieth, who read drafts of chapters 1 and 15. Their criticisms resulted in significant improvements. Unfortunately, it was not possible to take advantage of all of their stimulating suggestions. I hope that each one of the four will, in the near future, expound his own ideas in the written forum. Research on retirement will be significantly advanced and enriched.

I also wish to thank the several persons who efficiently and cheerfully assisted the authors and editor with preparation of the bibliography and manuscript.

FRANCES M. CARP, *Editor*

Foreword

This book reports a conference held by the Adult Development and Aging Branch of the National Institute of Child Health and Human Development (NICHD), one of the National Institutes of Health.

NICHD is concerned with the biological and psychological processes that transform the individual as he passes from conception to old age and with the interactions of the changing individual and society.

The present series of conferences on retirement initiated by Dr. Frances Carp is an expression of the interest of NICHD in the problems of the elderly and in the phase of life that in our culture is usually coincident with retirement.

LEROY E. DUNCAN, Jr., M.D.

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Preface

In the summer of 1966, the Director of the National Institute of Child Health and Human Development, Dr. Donald Harting,¹ proposed as a focus for the Adult Development and Aging Branch the transition stage in later maturity which is approximately coincident with retirement from work. Dr. Harting's suggestion grew out of the Institute's desire to stimulate research in adult development and aging, and to make explicit its mandate for the support of behavioral as well as biological science approaches.

In the fall of that year, Drs. James Birren, Joseph Britton, and Ethel Shanas met with members of the staff to evaluate the suggestion and to consider possibilities for its implementation. These consultants considered the topic to be closely relevant to the mission of the Institute and to merit the highest priority.

The group recommended a series of conferences of workshops and immediate dissemination of conference outcomes, when meritorious, to the research community. Conferences permit the exchange of new findings and provide stimulation to participants. However, they can affect directly only a limited number of investigators, and primarily those already committed to research in the area. Publication will present a larger audience of investigators with research ideas, provide them with conceptual formulations to guide the design and interpretation of their studies, and put into their hands the latest tools and techniques.

As a general rule, each conference should focus on a specific topic or problem within the general domain of interest. However, the advisory group recommended that the interests of the Institute would be served best by a different format for the opening session. Its aims were to alert investigators to the interest of the Institute, to inform them of the most recent work in the general area, and to obtain a broader base of advice regarding tactics and strategy most appropriate to the Institute goal of stimulating systematic research on retirement as a phase of human development. Therefore the tentative list of participants was compiled to give wide coverage by disciplines and by topics; nominations took into account competence in research and interest in this phase of the lifespan. Papers were selected because they presented new

¹ Now with the Family Planning Project, American Public Health Association.

data or new analyses of old data which deserved discussion and publication.

As a result, the table of contents does not reflect anyone's notion of adequate coverage of the domain. Neither is it limited to the human development focus of the NICHD. It includes a variety of studies which were newly completed and not yet available in publications. Each study seemed relevant to the programmatic interest of the institute, either because it exemplified research which the Institute should foster or because it provided contextual information essential to sound human development research.

Each discussant was selected because of his special competence to comment on a particular paper and thereby to initiate general discussion. After the conference each wrote a paper which reports the main lines of the discussion during the session for which he was primary discussant. These are included as separate chapters.

The general discussion in the final session of the conference was directed to identification of research areas which merit special emphasis. The final chapter of this monograph presents some of these topics.

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LEROY E. DUNCAN, Jr., M.D.

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Background and Statement of Purpose

Frances M. Carp, Ph.D.

The Lifespan Development Context

According to the philosophy which underlies this monograph and the conference which produced it, optimal human development is the ultimate goal. Development is perceived as coterminous with life. It is continuous, sequential, and consequential—a concatenation of processes of growth, maturation, retrogression, and deterioration. It expresses the interaction of biological, psychological, and cultural forces, and is expressed in physiological, behavioral, and social terms.

Genetic factors set limits upon development, but these bounds are rarely, if ever, reached. Other factors interfere with development or fail to support it. The determinants of developmental processes must be defined and measured, and their consequences specified and evaluated. These determinants occur at all levels of organization from cellular to societal, and the effects of their interactions are cumulative throughout the life history. Comprehension of development, then, depends upon multidisciplinary investigations across time.

There is reluctance, or at least inertia, to perceive development as lifelong and continuous. For example, the "Annual Review of Psychology" persistently equates "Developmental Psychology" with child psychology. In the 1967 volume, as in those of previous years, the chapter on developmental psychology includes studies involving adults only to the extent of reporting the effects of various child-rearing practices on children.(1) The implication is that development ceases with adolescence. The 1965 volume is the most recent which includes a chapter reporting research on post-adolescent behavior.(2) The absence of perceived relationship between development and aging, and perhaps some indication of their relative importance to psychol-

ogists, are illustrated by placement in that volume: "Development Psychology" is first; "Psychological Aspects of Aging in Man" is 14th among 16 chapters.

But changes do occur throughout life, more rapidly during certain periods, more slowly during others. Changes at any point in the life history are dependent on those which occurred earlier, and they in turn affect those yet to come. Normal development involves coordinated increments and decrements. During early life, increments seem to predominate. During late life, decrements are observed more commonly. It remains to be determined whether all changes past any given age are decremental or deteriorative.

The Need To Extend Knowledge of Development to the Later Years

In general, the older the organism, the more numerous are the determinants of its behavior, and the less we know about those determinants. There are gaps in scientific understanding of even the early levels of development, and beyond achievement of maturity, surprisingly little is known. The further one looks along the age scale, the sparser become the data, the more primitive the theoretical formulations to guide investigation, and the smaller the repertory of techniques for data collection. Little attention has been given to the conceptualization and systematic investigation of the developmental stages of adult life—the periods of relative stability and the critical periods or turning points between them.

Adolescence, a critical period of dramatic shifts in the environment and striking changes in the individual, is understandably intriguing to investigators. It involves the resolution of a complex and often conflictive interplay of biological, psychological, and social changes. The word "adolescence" evokes a fairly clear, comprehensive, and common image of the life stage leading from childhood to maturity. Though the interactive processes of adolescence are not completely understood, the effort put into their investigation has brought forth both useful information and fruitful theoretical formulations. Clearly, the factors which influence the resolution of developmental issues in adolescence are based in childhood as well as in adolescence itself. Equally clear is that the quality of development during adolescence can be judged on the basis of its product, the adult.

An Anonymous Period of Transition

A later transitional period has received scant attention from investigators, though it must be as complex as adolescence and potentially as fascinating. This is the transition which follows the relatively stable phases of life which are initiated by adolescence. So totally has this transition in later adult life been ignored—or avoided—that it remains unnamed. The next transitional term in our developmental vocabulary

after "adolescence" is "senescence," which refers to the transition into old age. Obviously other phases of life intervene between adolescence and senescence—at least early adulthood, middle maturity, and later maturity.

Periods of transition seem to be inherently more interesting than periods of stability. It seems strange that there is not even a name for the shift from the life stages which are the fruition of adolescence, and in which productiveness, responsibility, and activity are goals, to later stages in which these goals may be neither appropriate nor attainable. This anonymity reflects lack of interest and predestines inattention. A suitable label will be a significant contribution. However, conceptualization is a prerequisite. Naming must come later, when the nature of this life phase and of the developmental tasks it involves are understood.

The lack of an appropriate name impedes communication, and no focus is provided for the attention of investigators. In addition, research may be retarded by the negative valence of later life. Why study the transition into limbo? Studies consistently show that few people consider the later years to be the best in their lives. Few investigators choose to invest their professional lives in study of later maturity and old age. A small fraction of the national research dollar is spent to learn more about them.

There are not even adequate descriptions of the transition from young adult status to the next relatively stable period in the life history. The person experiences decline in sensory-motor functions, perhaps diminution of stamina and endurance, probably some accumulation of ailments. Until recently, it was thought that his intellectual competence must be diminishing, though recent studies cast doubt on this. (3) (4) (5) Significant changes in intelligence may not occur until very old age, except in persons who sustain brain damage or those nearing death. (6) Menopause and reduction in sexual performance are relevant, though probably they are even less synonymous with the anonymous development period than is puberty with adolescence. Neugarten's findings indicate that the menopause is not necessarily traumatic. (7) Important alterations occur in social press and social roles, (8) (9) and in ego processes. (10) Changes during the later transition often reverse those of adolescence, though many issues are the same: dependence versus independence, usefulness versus uselessness, and self-esteem versus self-devaluation.

For the adolescent it is fairly clear how these and other developmental issues should be resolved, because the goal is ability to function as an adult. Independence, productiveness, activity, and social involvement obviously are good outcomes in our culture at the present time. However, society has not decided whether, as a person moves past young adult status, he should become more or less independent,

sociable, or active. As Rosow puts it, society has defined no role models for developmental stages beyond early maturity. (11)

Everyone knows, in general terms at least, the major developmental tasks for infancy, childhood, adolescence, and young adulthood, and there is common recognition of behaviors which are appropriate and inappropriate to each. For subsequent periods of life, no culture norms are available to serve as models and goals. Generally, changes in later life are assumed to be losses, perhaps because, in the absence of age-appropriate models, variables are selected which are relevant to earlier life stages (and for which measuring instruments are available), and performance is measured against standards of earlier years. This interpretation tendency is reinforced by clearly documented decrements in sensory-perceptual-motor performance. (12)

Change must, of necessity, be measured and interpreted in reference to some standard. Until the stages of later maturity are described and accepted as legitimate parts of lifespan development, the changes which occur during the period of transition into later maturity cannot be assessed adequately. To take a ridiculous example, we say that the older person shows decrement because the speed of his response is slowed, but it would never occur to anyone to interpret as "loss" the inability of the teenager to creep or crawl as well as he once did, or the inefficiency of a 5-year-old with a nursing bottle. Early stages of development are known to require relinquishing some behavior patterns as well as acquiring others. This principle is rarely applied to adult behavior.

For early periods it is also commonly agreed that development is best assisted by defining goals so that they are clear to the developer, and by managing rewards so that the "best carrot" is ahead and the satisfactions relevant to earlier stages are less. The "stick" is recommended for limited use because its application may "fix" undesired behavior or lead to unpredictable consequences. (13) (Punishment may have favorable effects if it clarifies the situation for the learner.)

A 4-year-old comes to his mother wanting a nursing bottle, wanting to be bathed, objecting to set mealtimes, complaining that he is expected not to cry very much, and that he must pick up his toys. We say that he is regressing, seduced by the satisfactions of infancy expressed in the dependence and irresponsibility of a baby brother. We say that he is developing nicely when he can, after complaining bitterly, go on to express the satisfactions of being a "big boy"—having a tricycle, crossing the street, going to ball games with daddy—and when he resolves his problem in favor of growing up as the more satisfactory alternative.

An overweight adolescent comes home crying from a dance at which she was a wallflower. We say her mother acts against the girl's developmental best interest if she offers her the consolation of cake and ice

cream. Rather, she should help the girl implement a constructive course of action—diet, beauty parlor, dancing lessons—which will enable her to experience success in heterosexual activities appropriate to her age. The girl's development depends upon establishing satisfactions relevant to the tasks of adolescence.

A man aged 65 is retired by company policy, or one over 40 loses his job and remains unemployed. The "sticks" are apparent, but where is the "carrot"? What are the cognitive and motivational factors that guide his development? The satisfactions of early maturity—from income growth, career development, community service, child-rearing, youth, and possibly good looks—are reduced, it is true; but do relatively greater satisfactions lie ahead? Or is the person faced with negative alternatives only? The future may seem sterile or even threatening and he is barred from the past. Is he, then, placed in double-avoidance conflict? (13)

This pattern of choice is the most difficult to resolve. Whether it is conscious or unconscious, the persistent stress from the unresolved conflict tends to lower general adaptive efficiency, reduce resistance to other stresses, and cause irreversible wear and tear of the organism. (14) The double-avoidance situation is likely to lead to apathy and reduction in activity. (13) If a white rat is placed between two electric grids he is likely to become immobile midway between them. Is disengagement (15) to some extent a typical reaction to an avoidance-avoidance situation rather than a developmental process specific to growing old?

The stress from a double-avoidance situation is more intense if the person perceives the situation as one attributable to himself, and it must be difficult to avoid recognition that it is *his* age, *his* health, *his* job, *his* fading youth, and *his* failure to capitalize on opportunities when he had them that now affect his state. Would biological and behavioral aging be decelerated if society established gratifications in later maturity which would outweigh the now unavailable ones of earlier maturity, and so guide development with less stress?

Alternatively, some typical behavior of older people may result neither from intrinsic processes of aging nor from unresolved conflict but, quite the opposite, from reduction in stress to the point of inadequate stimulation. During most of the life history, development is seen to depend upon goal-directed striving, and mental health upon cycles of problem-solving behavior and consequent stress reduction. Older adults who are inactive, unsociable, and unhappy may be reacting as would persons of any age to a similarly sterile and unchallenging situation.

Persons entering later maturity cannot have a clear picture of how they should behave until society has decided what the later periods of human life ought to be. The learning task is cognitively obscure and

motivational elements are largely negative. Appropriate motivations cannot be offered until we know what later maturity is all about, nor can they be established until we identify the intrinsic motives of persons in later maturity. Rewards should lead the individual toward the desired behavior. To do this, rewards must be relevant not only to the prescribed performance, but also to the needs and drives of the actor. We would not get far with toilet training a toddler if we used a baby blue Cadillac as reward, though the behavior of a college student might be managed well with that inducement. The dictum of learner-relevant rewards probably holds at all ages. Yet we know little about the needs and drives of older adults.

In summary, the period of transition from young adult life to a later stage of adult life is poorly understood and, unless special efforts are made, it seems likely to remain so. Such efforts should be made, because this transition from young adult life will determine the nature of the succeeding, relatively stable period. As at adolescence, in the transition to later life the organism undergoes change at all levels—biological, psychological, and social. The determinants and consequences of this change must be understood in order that developmental processes can realize the potentials of this period of life and prepare the individual for succeeding stages.

Investigative Strategy

Complex Topic. When so little is known about the psychological and social processes of a life stage, or about the interactions of these with each other and with the biological, it is at once crucially important and extremely difficult to locate an entry point for initiation of systematic investigation. One event associated with the transition period in question, and an event which often seems to trigger widespread changes, is retirement from a paid job, from raising a family, or for spousehood. Though cessation of the primary occupation of the young adult years is only one event of many, just as assumption of it is only one task of adolescence, it is an important one. (16) (17)

Discrepant and Conflicting Findings. When approaching a complex subject matter, there is advantage in focusing first on one facet. This strategy seems necessary when results of available studies disagree. Discrepancies and conflicts abound within the relatively sparse literature on maturity and aging. Reference has been made to the different views of age changes in intelligence which are given by earlier and by recent studies.

As another example, evidence regarding the relationship of health to retirement is conflictive. Some studies show that failing health is by far the most common reason for retirement. (18) Others find a much lower rate. (19) These differences may reflect differences in the age, income, education, job, retirement plan, attitude of the subject samples,

or differences in the circumstances in which data were collected. Attributing retirement to disability may be a protective response in some instances; illness may be more acceptable than obsolescence. This possibility is supported by the preference of some sick elderly persons to say they are "sick" rather than "old." (20) To add to the confusion, some investigators hold that retirement has a deleterious effect upon health, (20) (21) others that retirement is salutary, (22) and still others that it has no consistent effect. (23) (24)

Dual Roles of Some Variables. Many important variables play both cause and effect roles in relation to behavior in later maturity. It is essential to clarify the complex interactions. For example, both health and income are determinants of the time of withdrawal from the labor force, and they are powerful conditioners of all aspects of the adjustment to retirement and of the consequent life style. In addition, income is reduced by retirement, and health may be found to improve or decline according to some systematic categorization of retirees and their situations. It is important to be clear whether health or income is being studied as cause, concomitant, or effect of some other variable. This is true also for other variables associated with later maturity. Clarification of the relationship should be facilitated by initially studying all other variables in relation to one, for example, cessation of work.

Changing Relationships Among Factors. The advantage of concentrating on one factor is even greater when there is reason to expect that relationships among factors will change. Such an expectation is appropriate in this case. For example, during the next 20 years the climacteric and retirement probably will occur more closely together in time, and possibly even in reverse order; retirement and death almost certainly will be separated by a wider interval.

The Problem

In need of investigation, then, are: transitions related to completion of personal and societal expectations regarding participation in the labor force, child-rearing, or spousehood or: developmental processes involved in preparation for, realization of, and reestablishment of life following retirement from the major life work of early adult years.

Disadvantages of the Term "Retirement"

"Retirement" was accepted as a working title only after considerable effort to identify or invent a more appropriate term, and then with considerable reluctance. A name is needed for this developmental period which will be suggestive of the general nature of the biological, psychological, and social conversion. However, a cogent label cannot be devised until the nature of the developmental period is better

understood. Also, strategic considerations suggest the wisdom of initiating investigation with a focus on one aspect of the developmental period, and retirement is an important one.

Even within the limited domain of work cessation, the term has disadvantages. A new name would free investigators from the accumulation of diverse and often conflicting meanings which have accrued to "retirement."

Different Meanings of Retirement

Retirement has many meanings to those undergoing it: the end of individual worth and social contact, a haven of rest, relief from an unpleasant, overtaxing, or health-draining job, or completion of commitment to society and initiation of self-realization. It may be a ceremony between one career and another; it may represent the opportunity to start one's "real" life work or to draw two paychecks. Second and even third careers are becoming more common among men and among women whose first career is motherhood.

Investigators use different definitions of retirement for their studies. Some equate retirement with withdrawal from the labor force, usually within certain age brackets, and perhaps for certain reasons, others, with termination of career job, regardless of what the person does subsequently. In some studies, retirees are all those past normal retirement age, usually 65. In others, they are persons who say that they have quit working or no longer work full time. Included may be persons who consider themselves unemployed and who continue to seek work, and those who do not admit to earnings which jeopardize social security or old-age assistance benefits.

Average age and age range of retirees may be different from study to study. The age span of retirement includes several developmental stages. Sampling it in different ways is useful, but only if done explicitly and systematically.

Some investigators suggest that, to understand the potentials of retirement, studies should focus on leisure rather than on retirement. Leisure should be distinguished from unemployment and illness and is characterized by voluntary acceptance of the status, personal satisfaction in it, and perhaps noninstrumentality of activities. Defining retirement in terms of leisure would be particularly useful, because retirement is only one manifestation of the expansion of leisure throughout our society and, insofar as possible, research on retirement should speak to the larger issue.

Work is usually defined by contrasting it to free time or leisure. However, this definition provides little consistency. Some writers define work in terms of physical conversion of energy, and derive descriptions of all varieties of physical and mental work from that concept. There are drawbacks to this approach. Equating physical and

mental work is difficult, and persons with sedentary jobs may convert more energy in leisure pursuits than on the job.

Leisure is sometimes defined as the antithesis of work in terms of economic function: work produces, leisure does not. This definition seems nicely objective; retired persons, by definition, do not contribute to the gross national product. It is however, an oversimplification. Some time during retirement is spent at nonleisure activities. These include housework, yardwork, cooking, grooming, health care, and, for some people, illness and job hunting. Old persons with low morale are unable to account for a significant proportion of their days. (25) This "lost time" surely is not leisure. Other categories of use of time and energy must be added to those of work and leisure.

During working years, "recreation" is stressed as a function of leisure, usually with the implication of renewal to return to the job. This approach has little relevance to the definition of retirement leisure unless recreation is more broadly defined.

Pleasure has been suggested as the basic distinction between work and leisure. However, many people enjoy their work, and retired persons may find little satisfaction in their many hours free of work. Leisure activities may be less pleasurable after retirement because they are no longer accented by periods of work. A simple hedonism may not characterize most persons leaving the world of work, and this definition of retirement leisure may represent a supercilious view of later maturity.

Freedom or autonomy may be the essential element of leisure as contrasted to work. The freedom-versus-compulsion polarity would avoid some of the difficulties encountered with other bases for distinguishing leisure from work. It seems to apply particularly well to retirement leisure. Most investigators find independence to be a strong need among older adults. There is general agreement that, with age, individual differences widen and each person becomes "more and more like himself." Some older persons express pleasure in being able, at last, to say what they think and do what they like when they want to, that freedom may be one of the few rewards of age, and an essential ingredient in retirement leisure.

At present there is no clear and single meaning for retirement. The word evokes many different connotations and is used in many different ways. This accumulation of discrepant connotations is a source of confusion. The word must be defined specifically for any research use.

Phases of Retirement

One aspect of the multiple meaning of retirement is the phasic or temporal. A particularly subtle source of confusion is the multiplicity of phases subsumed under the one rubric. Retirement is an event, a process, and a status. The single word denotes three quite different phenomena.

Retirement as an Event. Some future anthropologist may describe the retirement dinner as a typical rite of passage similar in function to puberty ceremonies, marking for the individual and his society a turning point in his life history and a change in his status. Jokes about the gold watch are plentiful but there is little evidence that the moment of formal retirement is a crucial turning point in the life history, one of those developmental "corners" around which a person turns to find a different view of the world and of the self.

Retirement as a Process. A more meaningful view of retirement seems to be that of a process which goes on within the individual over a period of time, a conscious or unconscious working-through of a new problem in adjustment to the demands of life, a transference from one relatively stable period of life, that of young adult-producer, to another relatively stable period, that of person in retirement. Little is known of the precipitants of this process, its determinants, or its duration. For some persons there is an incubation period which begins months or years before cessation of work. For others the gold watch dinner may initiate the process. Some may never accept the developmental task. The process comes to a close when the person completes the transmutation and establishes a new level or form of stability in his personality organization, interpersonal relationships, and life pattern.

Retirement as Status. Probably some persons never complete the process, never become retired in the psychological sense, just as some adolescents never become adults except in years and body. However, sooner or later, for better or for worse, most persons make an adjustment, and their lives become stable again in retirement. In this usage the word is descriptive of a status which lasts until death, and during which the person and his situation undergo many changes.

Even those subject samples for retirement studies which are drawn carefully on the basis of age or retirement date may actually sample indiscriminately from the populations of persons in the retirement process and in various stages of retirement status. Only confusion can result from lack of clear understanding that factors relevant to "retirement" may not be identical for these phases. Results obtained from people at one may not be applicable to those at others. Conflicting results of various studies may reflect differences in the retirement phase of those studied. Research planning and interpretation with this in mind will clarify and enrich understanding of retirement in its temporal or phasic aspects.

Patterns of Retirement

Other conflicting results may be due to the fact that there are various patterns of retirement. For example:

1. Retirement at the normal retirement age under a formal retirement system;
2. Early retirement under a formal system;
3. Late retirement under a formal system;
4. Retirement from a firm without formal retirement;
5. Retirement from self-employment and
6. Increasing difficulty in obtaining employment until it ceases.
7. In addition, women who have never been in the labor force constitute a sizable proportion of the "retired" group.

To complicate matters further, individuals from any group except No. 6 may take up other employment, either full- or part-time. Are they, then, retired?

Probably the most typical pattern today is retirement from a steady job in a firm which has no pension plan. (At present a minority of workers retire under the provision of retirement systems, but the proportion is growing. There is evidence that many workers would retire sooner if they could look forward to adequate retirement income.) Among this group, at present, the commonest reason given for retirement is ill health. However, the rate of retirement of older workers rises disproportionately when there is any rise in unemployment, which suggests that economic pressure is important in putting the older worker at a disadvantage. "Health" may be used euphemistically in explanation. "Voluntary" retirement may encompass a wide spectrum of explanation for leaving the labor force.

Another way to divide retirement patterns is:

1. Refusal;
2. Retirement to a planned life (which may or may not turn out as expected); and
3. Retirement without previous planning (which probably is the most common pattern).

At present there are many paths to retirement, and retirees are a heterogeneous group. They include the disabled, the unwell, the vigorous; the unwilling, the voluntarily retired; those who add earnings to retirement benefits, those who are unable to work or to qualify for disability payments; men who have been "unemployed" for years; and many others. Whether viewed as event, process, or status, retirement is different for persons following the various patterns. Use of the omnibus term should not obscure the need for differentiation, when planning and interpreting research.

Need for Definition of Basic Terms

As long as terms are used interchangeably by various investigators to represent different concepts, coherence of results will not result. It may be necessary to study retirement, leisure, and work for some time, using various limited hypotheses about their distinctive natures,

before it will be possible to frame adequate theoretical constructs of their essential differences. Only then can definitions be stated which will be generally acceptable among investigators. Acceptance of standard definitions would provide comparability among studies which often is lacking.

On the other hand, variations in definition emerge from the special interests and competencies of investigators and are imposed by characteristics of the situations in which data are available. Therefore a variety of definitions may persist, and this diversity may be fruitful rather than regrettable. However, it can be systematically productive only if each investigator reports explicitly the definitions he used and the conceptual schemes from which they were derived. If this is done, results of various studies can be related systematically to each other and to conceptualizations, and sound theory systems can be developed. Obviously, an operational definition, to be scientifically useful, must be more than a mere catalog of descriptive data. It must derive from some theoretical model which holds promise, and it must move toward a more effective way of analyzing the subject matter. Premature imposition of standard definitions, even if it were possible, would stifle investigation. Clear and specific definition of variables, study by study, will do much to advance it.

"Retirement" as a Working Title

To recapitulate: the long-range goal is to extend understanding of development (including retrogression) beyond achievement of maturity. A transition period in later maturity probably is of great consequence and should receive immediate attention. One issue during this transformation period is completion of work role. This issue has been selected as an entry point for investigation of the transition period. As the nature of the period in development comes to be understood, a name comparable to "adolescence" and "senescence" should become available. It will supplant the working title, and its adoption will broaden the research domain to its natural dimensions. Initial efforts will be concentrated upon the determinants and consequences of severance from the major work of young adult life. Attention will center upon retirement as process rather than as an event of a status.

A definitive name will be a major contribution to research on the anonymous transition period. In the meantime, despite its drawbacks, "retirement" seems useful as a working title. Though there are many ways to define retirement specifically, there is common agreement on its nature in general. Communication will be easier using "retirement" than a designation such as "X" or any other term suggested so far. Theory building and design of investigations will require specification, no matter what term is used.

Emergence of a New Phase in Human Development

One reason for the dearth of information regarding postwork phases of the life history is that only recently have there been significant numbers of persons in them. As the efficiency and productivity of the economy increase, the age for retirement goes down. Simultaneously, advances in medical science and care keep more persons alive into mature years, probably improve competence and well-being during them and, to a lesser extent, increase longevity. Further increases seem imminent.

Tibbitts (26) has pointed out that the highly developed, high energy economies of this and several other countries have produced a new social class. In developmental terms, these economic and medical trends have created a new phase in the normal lifespan, a retirement-leisure period which almost everyone will experience.

Until fairly recently the life history went through gestation, birth, infancy, childhood, adolescence, adulthood, senescence, and death. In general, people played in infancy, were educated or trained in childhood and adolescence, worked in adult years, quit about the time it was no longer possible to work, and died soon thereafter. In some parts of the world this is still true. However, in this country and some others, an increasing number of years lies between end of work and end of life. These years provide opportunity for attainment to "higher developmental levels" of human nature (10) (27) with consequent benefits to individuals and to society. However, extending years of obsolescent existence constitute a drag on society, disrupt development of younger generations, and are less than a blessing to those who have them.

This emerging phase can be frustrating and degrading or it can be a fulfilling and creative segment of life. People in it have, to perhaps a greater extent than at earlier stages of life, wisdom, understanding, compassion, and perspective—traits badly needed in our time, with its dangerous gap between technology and the solution of personal and group conflicts. Understanding of forces underlying this evolving life phase and consideration of factors which influence it are of crucial importance in determining whether it will elevate or degrade human life. Because of the number of persons anticipated in the new developmental period, such study should not be delayed.

Persons in the New Retirement-Leisure Period

The postwork leisure role is available to (or forced upon) increasing numbers of persons. The rise in number of retired persons is rapid, both absolutely and in proportion to other age groups. In 1900 there were 3 million people aged 65 and over in the United States; it is estimated that there were 18.2 million in 1965. The proportion of the

population 65 and over rose from 4 percent in 1900 to 5 percent in 1930 and to nearly 9 percent in 1960. Individuals tend to live longer. See table 1 for life expectancy figures of 50-year-olds from 1900 to 1965.

TABLE 1.—Expectation of life in the United States, at age 50

	White male	White female	Nonwhite male	Nonwhite female
1900-1902	20.76	21.89	17.34	18.67
1909-1911	20.39	21.74	16.21	17.65
1919-1921	22.22	23.12	20.47	19.76
1929-1931	21.51	23.41	17.92	18.60
1939-1941	21.96	24.72	19.06	20.95
1949-1951	22.83	26.76	20.25	22.67
1965	23.20	28.50	21.00	25.00

Source: Statistical Bulletin of the Metropolitan Life Insurance Co. Compiled from various publications of the National Vital Statistics Division, National Center for Health Statistics, and the Bureau of the Census.

Probably these trends will continue and perhaps they will accelerate as medical science attacks the killers of the later years of life and masters biological aging. Also, both length of life and competence during the later years should be affected favorably by recent provisions for health care through private insurance protection and public care programs, and by projected advances in environmental design of residential units, communities, and transportation facilities.

While longevity increases, and more people live to be old and to be well in old age, the number of years they are needed or tolerated in the labor market decreases. Our economy is no longer one in which a person normally is economically productive until life's end or very near it. Anderson stated it well:

... our economy is shifting from one in which older people produce to one in which they consume. Persons who have worked for 40-odd years under the value system of work and money with its constraints and controls must now adapt to a society which emphasizes self-initiated activities and leisure. Hence to the increase in the length of life and the increase in the number of old people must be added the implications of a tremendous transition now going forward in our society which makes basic research on the mental and social adjustment of older persons essential. (28)

Today's people aged 65 and over are the first group to experience the increase of leisure. As Donahue, Orback, and Pollack point out:

... the emerging pattern of social life which we designate as retirement represents the development in modern society of a new and distinct role available universally for ever larger numbers of persons which has virtually no precedence in existing or previous forms of social organization. Retirement is the creation of an economically nonproductive role in modern societies which are capable of supporting large numbers of persons whose labor is not essential to the function-

ing of the economic order. As a process, retirement is the prescribed transition from the position of an economically active person to the position of an economically nonactive person in accordance with the norms through which society defines this change. (29)

If production trends are maintained—and probably they will accelerate—persons in younger age groups will of necessity experience this transition from economic activity to economic inactivity, either because of a continual lowering of retirement age or through some new pattern of distributing work, education, and leisure through the adult years. Older workers are the “trial piece” on which society will learn about the new leisure, but retirement can no longer be equated with old age.

The Meanings of Work and Leisure

For the first time in history, significant numbers of people have completed their work well before the end of their lifespan. Ironically, that same society which added years to life with improved health and economic security, also ingrained into members of today's older generation strong habits of work and respect—almost reverence—for labor. Older people tend to equate industry with virtue and they have had little acquaintance with leisure.

In the long view of history, work has been a major trial and tribulation to mankind. Adam's punishment for “the fall” was the necessity henceforth to toil for a living: “In the sweat of your face you shall eat bread . . .” (30) During the golden days of Greek civilization, leisure was the perquisite of a small, favored upper class. Medieval man perceived no strong polarity between work and play. Only in 19th century Western culture did work become a good in itself.

Even today this compulsion is not universal. Serious misunderstandings exist within this country because persons in some subcultures use work as means only, whereas for members of the dominant society work is as much end as means. Stereotyping certain ethnic groups as shiftless and immature is a result in part of the tendency of members of these groups to work when they feel that they need the money and not to work when they feel that they have sufficient funds to cover their needs—which may be quite different from ours also. We do not recognize the recency or provincialism of the majority ethic. It is so deeply woven into our moral fabric that we cannot see it. For older adults in America, work is not only a way to live, it is also the way of life.

Those in their sixties and seventies are therefore on the frontiers of an ideological revolution. How does a whole society replace work as the major source of meaningful life? (31) Incomes normally decline abruptly upon retirement, and it is not yet known how much of the reported effects of retirement are contingent upon this fiscal concomi-

tant. This is a serious question whether money is the only or even the major derivative of work to the worker. It is by no means certain that older persons in our culture today—even those with adequate income—can be happy without work.

Because increasing years of leisure toward the end of life seem to be in store, it is important to study possibilities for change from the motivational centrality of work. At stake is not only the happiness of individuals as they retire, but also the well-being of society, which will be penalized by their resentment and despair or enriched by their fulfillment and contribution.

At present the factors which largely define success in life and therefore provide satisfaction and fulfillment are money, activity, and youth. All are intimately bound up with work. Retirement reduces income, creates conditions conducive to inactivity, and confronts the person with loss of youth. For many persons, retirement offers nothing to make up for the loss of these supports to self-esteem. Poverty is not a virtue. Contemplation and introspection usually are equated with "vegetation," and volunteer work with "being a sucker" or "basket weaving." Madison Avenue sells few products by associating them with old age. The Oldsmobile Co. now advertises its "Youngmobiles."

Social Changes Which May Affect the Meanings of Work and Leisure

Experience With Leisure. Changes are underway. Colleges, high schools, and even elementary schools are beginning to train and educate for leisure. Workers experience increasing contact with leisure, and it may turn respectable through familiarity. Workdays and workweeks are shorter than they were when today's retired persons were young. Paid vacations are longer and extend to more of the labor force. Innovations such as the 13-week vacation for members of the steel union are being tried.

Motivational Relocations. More persons are enrolled in retirement benefit plans. Economic security in retirement would reduce preoccupation with money. A relocation of values may also be underway throughout society, a shift from money as the primary measure of personal worth. Today's retired person tends to feel that, unless an activity is performed for pay, it is only "busy work" not truly valued by society.⁽³²⁾ The group studied was poor (one-third of the persons aged 65 and over have incomes below the poverty line), and the experience of this generation with the depression has sensitized them to economic want. In a few years the depression will be an historical event rather than a personal experience, and the effects of impoverishment during early years will be seen only in minority and other subgroups of the population.

However, it is by no means clear that the affluent old do not want payment. Desire for pay sometimes seems as much a request for reassurance regarding the worth of the activity and the person as it is a demand for purchasing power.

Nonmonetary motivations are operant. Some members of both the prework and the postwork generations are concerned with social problems and their solution, and relegate financial remuneration to secondary importance. Participation in such programs as the Peace Corps and VISTA is an example. Even among poor old people today there is frequent expression of the need to make a meaningful contribution to the welfare of others. (25)

Volunteering is not made easy for older persons. The Peace Corps has been criticized for the small number of older volunteers, for confining recruitment efforts to campuses, and because it has used selection, training, and assignment standards for older persons which were developed for college students. The physical obstacle course may be irrelevant to selection of schoolteachers or agricultural advisors. The 22-year-old "A.B. generalist" tends to be upset if he does not get the assignment he requested. How much more disconcerting it must be for the retired physician to find himself planning irrigation systems in an area without medical care, or for the retired farmer to work as a medical technician in a country in desperate need of updating its agriculture. The few volunteers past retirement age receive publicity, but the Peace Corps, like most social welfare programs, does not shape its policy for this group.

In 1960-61 (before Headstart) a group of retired schoolteachers in a housing project for the elderly in San Antonio, Tex., wanted to start a preschool program. Most children in the neighborhood entered first grade knowing no English, and the exteachers were aware of the handicap this imposes. All volunteers were in good health and seemed competent. They wanted no pay. However, no person or organization in the community would help them find space or contact parents.

Many could provide similar anecdotes. Few volunteer programs are geared to the needs of retired persons or attempt to utilize their special capabilities to contribute to the welfare of others. This human resource may become highly valued if, as seems possible, definitions of human worth begin to emphasize terms other than money. The "hippies" may be expressing, in fringe form, a tendency endemic to our time which is expressed in less extreme form in proposal of a senior service corps.

An improved financial status through social security and other retirement-benefit programs could provide a foundation for the development of noneconomic bases of worth. If the time and energy of retired persons were not preempted by efforts to subsist on inadequate incomes, if their possibilities for activity were not so severely restricted

by lack of money, and if society valued their participation, who knows what the response of older people might be to humanity's needs? Perhaps new tasks and new rewards are evolving for the experienced person who has time for society's problems because he no longer must compete in the labor force.

Alternatively, retirement may come to be defined as the phase of life after the individual's obligation to society has been met and he is free to pursue his own ends, to live his own life, at last, as he likes. The person who retires according to the second pattern may be, incidentally to his purpose, of unique value to the society in which he lives, as model, commentator, and appreciator. If retirement acquires a positive valence because it is an acceptable segment of life, and if people learn how to use its leisure, retired individuals and all of society will benefit from the emergence of the new life stage.

Toward this end, the needs satisfied by work, and the possibility of altering, relocating, or supplanting these motivations, should be investigated. History assures us that the present value dominance of work is not unalterable. Attitudes toward retirement are becoming more favorable. Knowledge of the reasons for this shift will be helpful in assisting it and in assuring that retirement becomes not a discouraged acceptance of the inevitable, but a redefinition of life with meaning.

Material success, occupational advancement, and social status—the dominant motives of today's adults—may be diminished in tomorrow's. We do not know what the adult goals and motives of young people and children will be. Retirement may have quite different meanings in 10 or 20 years.

Look to the Future

Whether society continues to take its surplus production in end-of-life leisure or chooses some other distribution, adults in the "leisure years" of the future will not be like those in them today. Younger persons, and probably people in better health and with improved economic resources, will be involved.

Never again will a retired population in this country include such large numbers of immigrants and of second-generation Americans or so many people with so little education. No other generation, we hope, will undergo two world wars and a "great depression" during their earning years, and a "great inflation" while they try to live on their savings. Attitudes toward work and leisure will be different from the "Pepsi generation," the "beatniks," and the "hippies."

Society may legitimize activities other than work and may even revert to idealization of leisure. Society's view may so change that activity and involvement, whether at work or leisure, will not be

requisite to personal worth. The disengagement hypothesis recommends this change in attitude toward those who are growing old. (15)

Research plans must look to the future lest, by the time results become available, they are of historical interest only. This requirement follows not so much from the publication lag, regrettable as it is, but rather from the rapid social change which is underway. In design, interpretation, and application of research studies, it is imperative to keep in mind the many relevant social changes. We must anticipate acceleration of the trends that created this retirement-leisure period which promises new levels of human development and threatens new depths of human degradation.

Requisite to research planning are forecasts of the scientific, medical, and social trends which determine the characteristics of persons who will retire, and of the physical and social contexts within which their retirement will take place. If results are to have more than momentary meaning, studies must take into account changes in society and dramatic medical advances. The present generation of retired persons and the world of their retirement are unique. It is important to learn all we can from them and to acquire this information in such a way that it is applicable to the increasing numbers who follow them.

Labor Force and Human Development Needs

Projections of present rates of population and productivity growth imply that by 1985 only about one-half the labor force will be needed to maintain the gross national product (GNP). (33) If society is content with the level of production, there are alternative courses of action to balance the labor force: delay entry, withdraw about half the work force for retraining or reeducation at all times, reduce the workweek to 22 hours or the work year to less than 7 months, distribute leisure throughout the adult lifespan, reduce retirement age to 38, or, what is more likely, some combination of these.

Any solution will have far-reaching effects on persons of all ages. Reduction in retirement age, which is likely to continue if there is no major policy shift, will have tremendous impact on "older" adults. Drastic policy change seems unlikely, because the forces which have led to earlier retirement are numerous and persistent, and maintenance of economic equilibrium largely through lowering retirement age has become a habit. This may be the best solution. However, it seems to occur by default rather than by explicit decision based on consideration of the socioeconomic and personal consequences of the various possibilities. Personal and social consequences of each alternative and combination of alternatives should be projected, and policy decisions should be made in light of these as well as economic considerations.

Economists are concerned with the need for a conceptual framework for analyzing lifetime allocations of work, income, and leisure in relation to productivity. They point out that, as output per man-hour in-

creases, a man's lifetime output of goods and services grows. Should he have more and more income or greater leisure or some of each? In what proportions? How apportioned through the lifespan? Biological, behavioral, and social scientists should become concerned with the differential impact on human development of the various alternatives—increased age at entry to the labor force, lower retirement age, decreased workweek, retraining, intermittent leisure, or increased goods and services. Investigators should also entertain the possibility of increasing the flexibility of work-nonwork schedules, both between individuals and within the career duration of one individual.

Balancing Production by Earlier Retirement

To point up the possibilities by exaggerating them, assume that excess production is balanced totally by adjusting retirement age¹ and imagine what would be going on in 1985.

The Retired and the Retiring. If retirement age approximates 38 in that reference year, the "cool kids" will be leaving the work force and joining the "beat generation," which will be in retirement. The oldest offspring of the newly retired will be college undergraduates; families may not yet be complete. End of worklife may normally precede, rather than follow, completion of child-rearing or even childbearing. A typical retirement dream sponsored by airlines today is travel for two. Depending upon family size and spacing of children, the first postretirement period may, instead, involve two-parent concentration on children and produce a new phase in family organization. New retirees' parents will be approximately the age at which retirement takes place today; they are the people who, by today's standards, expect to retire about 1985.

The economic position of retired persons in 1985 depends upon the extent to which young and middle-aged adults must assume financial responsibility for the children and parents, both in 1985 and in 1967. College education, newly becoming a "must" for the majority and increasing in duration for many, now occurs in peak earning years of parents. In the future, reduction of income at retirement may precede college attendance of offspring.

Two-generation retirement occurs now. Some retired persons' most serious problem is financial, social, or emotional support of aged parents. What multigenerational patterns of retirement will appear? What economic and interpersonal patterns will evolve? Only recently has it been recognized that the "retired" do not comprise a homogeneous group and that retirement must contain several life stages. In less than 20 years it may encompass several more.

Probably the population, the proportion of it in older age brackets, and the preponderance of women among older persons, will continue

¹ A more likely solution is described by Dr. Kreps in ch. 13.

to grow. Age-segregated retirement facilities will increasingly resemble old ladies' homes, and widows will comprise an even larger majority of older persons.

Industrialization, Automation, and Education. How will industrialization and mechanization affect the distribution of jobs by 1985, and how will the job distribution, in turn, affect retirement? Industrialization lowers retirement age. Nevertheless, it creates working conditions more congenial to older workers: less physical energy and strength are required, the variety of jobs provides some work more congenial in content, and geographical shifts are toward more temperate climates. Negative factors remain, such as the educational disadvantage of older persons and their avoidance of skill retraining and professional recycling programs. Obsolescence has been a problem in industry. It will become an increasing hazard in administrative, professional, and scientific positions. On the other hand, will industry and the professions suffer from the loss of persons at age 38?

Educational requirements probably will continue to proliferate. At present, unemployment and labor force withdrawal by older men are closely correlated with their educational and skill levels. The uneducated and unskilled are first denied jobs when there is a labor surplus, and they are most likely to reach retirement early and as the surrender phase of continued unemployment. At the other end of the scale, unless some educational revolution makes it possible to prepare scientists and professional people much more efficiently, they will hardly be ready to work before they reach "retirement age." Today, retirement is later for the self-employed, the better educated, and those in higher job levels. Perhaps these differentials will continue and accentuate, so that, by 1985, some persons will stop work well ahead of the average retirement age, while others will work far beyond it. This may occur as part of a general move to shape work to accommodate the characteristics of individual workers rather than, as now, the reverse.(34)

Distribution of GNP. Income is a basic determinant of retirement behavior. At present a sharp reduction in income is concurrent with retirement, and that drop carries many people to the poverty level. Most retired persons are on fixed incomes. As technological advances increase production and therefore worker income, the relative position of these retired persons declines. Will future retirees share in the benefits of economic growth or be penalized by cost-of-living rises? What will the effects on retirement behavior be if a universal guaranteed minimum income is provided by 1985? What will happen to man's motivations to remain active when he is given security without striving? Will younger personalities grow and strengthen in the absence of economic demands and stress? What will be the effects of sharply reduced income at age 38 as a normal occurrence?

Medical Science and Medical Care. Retirement at 38 in 1985 would occur approximately half way through the lifespan and would initiate a long postwork period of competence and good health for most people. By 1985, biochemists may have identified the basic processes of physiological aging and ways to retard or arrest them.(35) Perhaps by then it will be possible to instruct the aging human eye to generate a new lens, as the Drs. Coulombre observe occurring now in the eye of the chick embryo.(36) What a difference this would make in the experience and behavior of the many older people who have cataracts and others lens defects! Replacement or regeneration of parts of the human body may, by then, be relatively routine.

Medical science promises new breakthroughs which may have an even more dramatic impact on living for the older adult by minimizing the effects of cumulative injury and disease, and by preventing or curing the major killers and cripples of later life. In addition, advances in medical care should maintain competence and well-being during more of adult life. Through medical science and care, longevity should be increased and good health should characterize more of the older population. Lowenthal's data suggest that physical well-being will be reflected in low psychiatric illness rates for the older members of society.(20)

According to the Surgeon General: "The implications of some developments in biochemical science are so sweeping that we are barely beginning to grasp them conceptually and have not yet begun to handle them practically." and, "If bodies and minds can be shaped in the womb; if personality and physical capability can be manipulated throughout life; and if life can be extended well beyond our present span—then we are approaching a peak where the prospect is dazzling but the precipices are very steep."(37)

There may be interesting problems regarding utilization of medical services. This is suggested by the lack of increase in medical care use immediately following passage of the medicare bill. Provision of services will not improve health unless they are used. This may be only a short run problem due to novelty of the program, and utilization rates may soon rise. It may be a problem temporary in terms of generations. Today's older persons tend to view "giving in to illness" as indicative of poor moral fiber. Such a view may not be held in old age by today's younger adults, for most of whom medical care has been routine throughout life. It is interesting to speculate on the reactions of today's children to the diseases of old age unless there are major medical science advances before they reach that period. Because of the rapid strides in preventive and ameliorative measures against childhood diseases, the first experience with serious illness will occur in middle age or later maturity, for many of them.

Environmental Design. Urbanization will probably continue, and cities and towns will be planned for their users, at least to a greater extent than is true today. Environmental design which minimizes wear and tear on human beings should have a differentially favorable effect on aging persons.

By 1985 there will be "new towns" in which residence modules are tailored to occupants' needs and are movable and exchangeable as these needs alter with time. Transportation may be an effortless (and smogless) matter of entering, at the door of one's residence module, a private "pod" which operates at the command of an IBM card into which the traveler punches his destination.

Shopping may be accomplished at home via color televiewer, and cooking and housework may require only knowing how to direct a computer. Emotional needs of housewives may inhibit the utilization of such technologic possibilities. On the basis of current marketing research, producers of ready-mix products purposely require more participation by the cook than is necessary. For example, cake mixes sell better when the housewife must add fresh eggs—though powdered egg could be included in the mix with no loss in flavor or texture. A current sales promotion program of one large company promises the housewife that their newest product also allows her to add the butter.

Research Implications. Research investigators must compete with fiction writers to anticipate the future. Results of research designs which confound variables that happen to be simultaneous today will have little chance of cross validation or practical usefulness subsequent to social change that acts differentially upon those variables. Rapidity of societal change accentuates the need for careful research design to produce results that are replicable and answers that are applicable. Investigators should be aware of policy decisions which will shape the future.

Policy Alternatives

Alternatives to earlier retirement should be considered seriously in attempts to balance the labor force and the labor requirement. According to some philosophies, reduction of production through early retirement is incongruous for a nation which talks about improving the quality of life for its citizens and for those of other countries. According to this view, reduced labor force participation is better justified on the basis of the superior value of education and leisure over goods.

Full employment. Full employment may become the national goal. Military commitments have reduced unemployment to 4 percent. A similar rate might be achieved during peace by commitment to eliminate air and water pollution, or urban ugliness, or to meet the service needs of the elderly, or to provide a higher standard of living to a greater proportion of the population of this and other countries. Im-

plementation of such programs would have dramatic impact on the number, characteristics, and behavior of persons in retirement. However, the complexity of relationships among population growth, gross national product, and age-specific labor force participation suggests that achieving full employment would not be easy, even if it became the Nation's goal. Increased leisure is in store.

Distributed Leisure. To gain perspective, developmental scientists should view the present retirement pattern as one form of leisure allocation which may have greater or lesser human development advantage than other possible patterns. Various distributions of intermittent leisure and education during adult life should be considered as alternatives to early retirement. Economists can create models showing the approximate changes in lifetime production which would result from changes in total working time and in its distribution. Developmental scientists should explore the personal and social consequences of each variation.

The Topic Area

The social problem of retirement and the information gap in human development converge to define an important area for study: that period of development during which the person leaves or is severed from the major work of his adult years. Initially the focus is taken upon retirement, in full realization that other changes are related and remain to be investigated systematically.

Within this developmental domain, what are the salient issues, the major topics? What should be the priorities in importance? In sequence? The purpose is not only to inform, but also to stimulate, attract, and intrigue investigators. Are there significant barriers against research on this life phase which might be penetrated or removed? Would provision of certain tools speed progress? Generally, what is the most effective strategy to stimulate competent and systematic investigation of this new leisure period as a normal portion of lifespan development? Essential ingredients are adequate financial support, visible interest on the part of prestigious investigators, up-to-date information about research results, theoretical formulations pregnant with research issues, and effective instruments.

This group of eminent investigators from various disciplines was convened to present and discuss new research findings and to consider strategy and tactics for stimulating systematic research on retirement as a phase of normal development. Subsequent sections of this monograph present the papers which were read and summaries of the discussions which followed them. The final chapter describes several research topics which the group judged to merit special consideration.

The goal is to provide a sound research basis for action to improve the quality of later life. Understanding of the biological, psychological, and social forces which underlie development during retirement are of crucial importance to the realization of its potential for individuals and for society.

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Patterns of Psychological Health and Psychiatric Illness in Retirement

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Introduction

In 1882, without pilot experimentation and without significant knowledge of the consequences,¹ a major experiment *qua* social policy was introduced by Bismarck in Germany, in the wake of the industrial revolution. In this year, 1966, we do not yet have comprehensive data about the personal and social-economic processes and effects of retirement. However late the efforts, there is no doubt that studies of retirement are required. Whatever its values—and they do exist—retirement decidedly creates personal and social problems. We see personal fears, poverty, a waste of capable people, a huge Federal retirement fund deficit, and the expensive Social Security system.

My presentation will include a limited review of data I have obtained from diverse research and clinical sources. I shall indicate certain patterns of psychological health and of illness in retirement. I will suggest some social and research perspectives for the further study of the nature and effects of retirement.

Reactions to Retirement

Specifically, I will make note of some of our research findings in the National Institute of Mental Health (NIMH) studies of human aging 1955-62; of some of the retirement problems encountered in private psychiatric practice; and of some observations drawn from participa-

¹ Although Pinel, for example, had written of the dangers of moving from an active to an inactive mode of life. (1)

tion in preretirement seminars and in the development of an organization² concerned with the values and uses of the accumulated experience and knowledge of professionals and executives in retirement.

Retirement cannot be examined as a pure process or in a vacuum. (See outline 1.) It is only one element among the complex of events that occur in the later years, and it can be extremely difficult to disentangle the effects that these other events have upon the individual, and to distinguish them from the effects of retirement per se. Knowledge of the critical significance of the subjective and personal experience of retirement cannot easily be obtained in large survey studies.

OUTLINE 1.—Complex of factors affecting subjective experience, overt behavior, and level of adaptation of the elderly

A. Environmental or Extrinsic Factors:

1. Personal losses or gains: marital partners; other loved and significant figures (friends, children). Isolation; loneliness; uprooting.
2. Social losses or gains.
 - a. Status losses: prestige loss—social and as pater familias.
 - b. Social-economic adversities: income drop; inflation.
 - c. Unwanted retirement: "arbitrary retirement policies."
 - d. Cultural devaluation of the elderly: sense of uselessness; therapeutic pessimism; isolation; segregation.

B. Intrinsic Factors:

1. Nature of personality, character structure: Defensive and integrative mechanisms. Life history. Survival characteristics.
2. Physical diseases—any organ system; perceptual decrements; sexual losses; integrative systems: hormonal, vascular, and central nervous system; brain damage: arteriosclerotic and senile dementia, etc. Physical limitations: arthritis.
3. Age-specific changes—largely obscure and mysterious but inexorable (objective time passage); losses of speed of processes and response; catabolic processes (decreased thyroid function; decreased albumen); altered elasticity of skin, blood vessels, etc.; body size and appearance ("slipping" and "shrinkage").
4. Experience of bodily dissolution and approaching death (subjective passage of time).

NIMH Studies of Community Resident, Healthy Aged. (2) (3) (4) (5)

In our intensive, small-sample NIMH study, we found that the categories "compulsory" versus "voluntary" retirement were not as determining of consequences as was the presence or absence of conflict. "The man who had arrived at retirement through conflicting pressures seemed, some years after retiring, to adapt less well in old age," observed Marian Yarrow from the social-psychological perspective. (5) The psychiatrists in the same project observed that depression

² The Forum for Professionals and Executives, The Study Center, The Washington School of Psychiatry, Washington, D.C.

while mild and reactive in nature, occurred in individuals who had usually experienced major crises such as widowhood or a disturbing retirement.

Out of our 51 subjects, 24 were forced to retire, 16 did so voluntarily, 9 were not retired at all, and 2 were in process of retirement. The retired had been so for an average of 7 years. Approximately half had obtained either full- or part-time employment following their retirement.³

Let me offer a few vignettes from the NIMH sample to give some sense of the variety of retirement experiences in healthy, socially autonomous old age.

One 67-year-old subject had been orphaned at an early age and was shifted frequently from orphanage to foster home until he was finally adopted. He appeared to have remained psychologically isolated despite his marriage and having a family. In many ways his "company" seemed to be the source of his personal identity. With retirement, he became mildly troubled. He began to search out records to determine who was his "real mother."

We were reminded of Willy Loman in "The Death of a Salesman." (6) You will recall the line: "A dream goes with the territory." If the dream, the personal need, is shattered, we are apt to see problems.

Many people, including Friedmann and Havighurst, (7) have written about the importance of work. In the NIMH study we frequently observed what we called "work dreams," wherein the individual finds himself back at work. When Ramazzini first described occupational disorders back in the 18th century, he probably did not suspect the possibility that we might one day have "un-occupational" disorders. (8)

One observation of interest to psychiatric evaluation and prediction concerned the extent to which the adaptive value of psychopathology changes with age. Characterological patterns and symptoms, and frank neuroses which may have been impairing in earlier years, may prove to be supportive and adaptive in old age, and vice versa. One good example is the filling of the retirement void by obsessional-compulsive patterns of behavior. On the other hand, one of our subjects was a professional person who was depressed by his contemplated retirement and his plan to enter an old-age home. His lifelong personality was that of a suspicious, at times frankly paranoid, individual who had constantly isolated himself. Confronted with the death of acquaintances and a dwindling practice, his isolation became all the more marked. He saw entry into the old-age home as "the end of the line."

The depressed, obsessional, and paranoid patterns of behavior are not the only reactions one may see in response to retirement. One rail-

³ It is often difficult to estimate how many people over 65 are actually retired. Because of taxes and the Social Security penalty through 72, there is a certain amount of bootleg or unreported work. Other older people regard themselves as unemployed rather than retired, and seek work until they become discouraged.

roader became frankly hypomanic following his retirement. If he had any subjective sense of depression, he in no way revealed it. Over the years I have received many post cards from him during his wide travels, which he managed on an extremely small income.

One 70-year-old former cashier decided to continue to work and obtained a job as the doorman at an exclusive men's club. He reported a marked increase in his memory ability, which naturally was of some interest to us in view of the traditional ideas concerning memory and age. His psychological test results bore out his very adequate intellectual function.

The oldest subject in our NIMH sample was a 92-year-old man whose chief complaint was, "I want a job and no one will hire me." Mr. S. had been a vestmaker. Vests, like Lucky Strike's "Green," went to war in World War II, and Mr. S. was without a job. By the time vests began to come back, he was well into his 80's and was unable to obtain a job. Mr. S. is still alive at 102 and so far as I know is still eagerly finding ways to keep himself busy.⁴

Within our NIMH group, the majority realistically accommodated to their retirements and either found a variety of substitutions for work or found new work.

Some Clinical Observations

Let me turn to those occasions where problems become clinically visible. In "The Screwtape Letters," C. S. Lewis wrote: "When two humans have lived together for many years, it usually happens that each has tones of voice and expression of face which are almost unendurably irritating to the other." (9) When the idea of marriage was conceived, life expectancy was much shorter. One of the common clinical observations in working with older people is the extent of deterioration of marriage. In our NIMH sample, too, one-third of the subjects reported deterioration in their marriages. (5)

Work has been recognized for a long time as a defense. Ferenczi observed Sunday, holiday, and vacation "neuroses" which he related to the existence of "impulses too dangerous to control" or to "laziness" and "qualms of conscience." (10) He observed what he called "little hysterical symptoms (headaches, depression, gastrointestinal symptoms, oversleeping)." One not uncommonly sees such phenomena in association with retirement.

In the light of the many efforts to prepare older people for retirement through preretirement seminars, etc., one must be cautioned to

⁴ There have been a number of court cases concerning compulsory retirement. In 1959 the Appellate Court of the State of Indiana ruled that a man could not be forced to retire because he was 70. The Court said that "common law has never held that a person attaining 70 has suddenly lost his status in being a man and, as a matter of law, has become a disabled shell of his former self so that he was deemed incapable of performing the functions he had been performing for 69 years."

note how often one sees participants in middle life who are "overpreparing." It is important to recognize such indications of overconcern. Individuals who have made wills in their twenties, who make long-range plans, who become preoccupied by what the future will bring—or perhaps even become gerontologists—may be revealing some very deep-seated fears of aging, of withdrawal from participation in the work force, etc. People are known consciously to select fields of self-employment in order to avoid retirement. He who lives in the future rather than in the present may be sadly disappointed.

But one also sees those who do not even conceive of, let alone prepare for, retirement:

A 66-year-old man who was recently retired had been diagnosed as having a chronic brain syndrome associated with cerebral arteriosclerosis. He was driving his successor to his high business position frantic by his constant phone calls giving advice, checking on details, etc., concerning not only past events of work but those of the present and future as well. He deeply resented and resisted hospitalization, but his doctor and family insisted. He was hospitalized for 4 months, during which he received intensive psychotherapy four times a week in addition to family conferences. He not only gained some insight into the psychological significance of work to him and into his great difficulties in adjustment to his retirement, but was also encouraged to find a utilitarian outlet for his financial talent. He became voluntary treasurer of a charitable organization and continued to do well in the community for some 8 years before his death of causes unrelated to his previous psychotic depressive reaction.

We also see the problem of uprooting or geographic mobility. In the clinical situation one not uncommonly meets an older retired person who has left his home for one of the much advertised retirement villages. Here he feels the lack of his familiar physical surroundings, activities, and friendships. He develops a depression and returns "home," but now in financial distress. Sometimes the retiree cannot afford to return home.

Research into retirement must include examination of the motivations, adaptation, and maladaptation of those who elect to move to another State, such as California or Florida, or to a special housing development for older people. How wise is segregation according to stages within the life cycle?

In the preceding brief view of some research findings in healthy, community-resident elderly subjects on the one hand, and of clinical work with private outpatients and inpatients on the other hand, I tried to indicate the wide range of patterns of healthy adjustments and maladaptive reactions to retirement. There is a considerable body of data regarding patterns of adjustment to retirement. Reference should be made to studies such as those of Streib and Thompson, (11) Tuckman and Lorge, (12) Burgess, (13) Friedmann and Havighurst, (7) and many others.

Social Reorganization

Short-Term Problems and Solutions

Psychological health and illness throughout life, and perhaps particularly in old age, are influenced in some measure by the social situation. Psychological health is adversely influenced in some people by the process of retirement. Our present social organization does not offer the variety of social, personal, and economic supports necessary to maintain a sense of usefulness, of dignity, and of identity. Alternations in our social order might facilitate the rite of passage of retirement. It is not surprising that problems have attended the introduction of this social institution; any new social change potentially creates difficulties.

Retirement has been both justified and criticized on a variety of grounds, humanitarian to socioeconomic. Because of the waste of human abilities, the disparity between chronological aging and biological aging, the variable requirements of different jobs, and the critical requirements of certain occupations (such as airplane pilot), much effort has been directed toward finding objective criteria to evaluate capacities and to decide upon the proper time of retirement. Individualization versus arbitrary retirement, then, has been a battleground and a research topic for some years.

To aid in adjustment, gradual retirement systems and preparation programs have been advocated. The balance of the generations, the needs of the young, the fluctuation in the labor market, the problem of age discrimination et al., have received considerable attention. The financing of retirement directly through pensions and indirectly through additional supports such as medicare and special tax consideration has been both a political issue and a subject of sociological and economic study.

A great deal has been learned and a great deal remains to be done. These issues may be largely transitional, but *retirement is here to stay*. (As I shall develop later, "retirement" may ultimately be distributed differently throughout the lifespan.) Instead of being alarmed over retirement, or automation, or any major social change, we may well be pleased over these developments and seek ways to harness them. Mankind might rejoice that its achievements—its social, technological, and medical advances—have made it possible to increase survivorship and to produce more goods and services by less human drudgery. Of course, the "advantages" are concentrated in the smaller half of our globe and affect the lesser portion of the world population.

Outline 2 draws attention to short-term problems which demand solution. One cannot overlook the fact that retirement currently is an undemocratic and inequitable practice. Certain groups, particularly political leaders and self-employed and professional people, are spared

the problems of retirement. In contrast, white-collar workers and skilled laborers are retired without choice.

OUTLINE 2.—Elements in social reorganization of the roles of the aged

A. Short-term Problems and Solutions:

1. Arbitrary versus flexible retirement: objective criteria; specific fields; individualization.
2. Social and personal waste versus necessary retirement; age discrimination in employment.
3. Democratization of retirement versus special immunity and inequity:
Critical occupations:
 medicine,
 law and the judiciary,
 political leadership.
4. Realistic and portable pensions.
5. Gradual retirement; preparation.

B. Matching Qualities of Life Stages with Personal and Social Needs:

1. Antiobsolescence:
 - a. Life cycle education. Schedules of renewal. Retraining.
 - b. Redistribution of "retirement"; leisure. Contemplation. Play. Vacation. Sabbatical. Travel.
 - c. Usefulness. Voluntary activities. Reappraisal of meanings of work, money. Organization of voluntary work.
2. Continuity. Posterity. Legacy. Stability:
 - a. Consciousness of history. One's place.
 - b. Transmission of knowledge, ethics, culture, power.
 - c. Intergenerational collaboration.
 - d. Elder function: consultation; teaching. Autobiographic process.

We need to study and introduce first-aid methods to make amends until a more fundamental reorganization of society is evolved.⁵

Need for Fundamental Reform

However, I think it best serves our purposes here to consider retirement in the much larger context of the changing social, economic, technological, medical, and demographic forces at work. I wish specifically to speak about the complex interrelationships between individual life cycles and the social-cultural environment.

The idea of the life cycle approach is old historically but it is rather new as far as social thinking is concerned. It is only beginning to be included in the work of the social and psychological sciences and in psychiatric research. Van Gennep, (14) Hall, (15), (16) Buhler, (17) Erikson, (18) Pressey, (19) Benedek, (20) Havighurst, (21) and Neugarten (22) are representative of those who have devoted considerable attention to the life cycle.

⁵The activities of the Subcommittee on Employment of the District of Columbia Interdepartment Committee on Aging is typical of efforts in first aid. One particularly interesting project under consideration is adding psychological counseling to an employment service.

However, there is no comprehensive body of knowledge concerning the life cycle as a whole, its stages, its modes, the complex interplay of individual life cycles with socioeconomic and cultural conditions, and its relation to time, that is, to history. For history is the progressive articulation of individual life cycles over time. It involves the generations and the transmission of knowledge and power.

Among the rites of passage that have been considered by various writers have been those occasioned by birth, puberty, marriage, and death. Our Western rites, however, have become fragmented and commercialized. For example, Jessica Mitford in "The American Way of Death" has shown us the lack of relationship between American funeral rites and Western and Christian traditions.⁽²³⁾ Geoffrey Gorer has suggested alterations in our rites respecting death.⁽²⁴⁾ It is both appropriate and likely that our outmoded rites of passage will be revised and new ones added.

One might ask why we need such rites. The processes of personal changes in the course of the life cycle, and the tasks attending them, are complex and difficult. Any ritualization or organization which society provides is likely to reduce the complexity, the difficulty, the ambiguity, and the time consumed in the inner transformation associated with an individual's movement from stage to stage. In short, each new individual more speedily and less painfully learns the score.

Except for the pioneers mentioned earlier, psychologists have only recently begun to study man beyond adolescence. No present-day psychology or personality theory incorporates a theoretical or empirical account of the full life cycle, stage by stage. We lack precision and rely primarily upon our individual experience, anecdote, prejudice, and cliché. This is true for the menopause as well as old age. As much is blamed on the menopause as is blamed on old age. Old wives' tales are sufficient to terrify many. Psychiatric disorders are explained on the basis of the menopause or old age, without questioning why millions of women do not develop involuntional melancholia during the change of life or why most older people develop no organic brain diseases.

We have no biopsychological definitions of the latter stages of the life cycle. We rely primarily upon conventions, usually employing chronological age as the defining variable. Yet middle age is usually regarded as encompassing the years 40-60, whereas on a strictly chronological basis one might expect 25-50 to be the middle third of life. This suggests that the genesis of these conventions is not entirely fortuitous, but that they probably express fundamental psychobiological events and processes. In our studies of human aging we certainly learned that the facade of human aging is dependent upon a variety of forces, chronological aging being but one of them.⁽³⁾

Social scientists, psychologists, and psychiatrists share in the effort of developing systems of classifying, coding, measuring, and interrelat-

ing aspects of behavior. Lists of behavior patterns, life styles, personality characteristics, defense mechanisms and the like abound. Some of these systems derive from theoretical preconceptions, others evolve empirically. (There is no law against the happy possibility of connections between theory and experience.)

Some efforts have been made to develop such systems of identifying behavior characteristic of people at different stages of the life cycle. In my own work, I have tried to observe and specify general characteristics or dimensions of late life, which I have presented elsewhere. (25) Old age is the period of reviewing, summarizing, resolving, conserving, and transmitting life experience and accumulated knowledge. This does not mean, of course, that "all" old people have realized or fulfilled these capacities; people at any stage of life do not necessarily fulfill the potentialities of that stage.

Quite apart from the possible value of concepts such as these, we need working life cycle charts of the changes, incidence, and prevalence of certain processes, interests, and activities according to age, as Charlotte Buhler has attempted to do. (17) Examples would include charts of work, of learning, of illness, of depression, of religion, of divorce, of sexual activity, and of drug effects. In the last 50 years, with the development of vital statistics, demography, economics, the social sciences, etc., we have begun to secure the necessary data.

In short, I am suggesting that *we need to reform the rite of retirement*. In so many respects the present process of retirement entails the transformation of a "person" to a "nonperson." Required is an examination of the social role of the elderly and of the meshing of the particular qualities of late life with social and personal needs.

In outline 2, section B, I have listed certain suggestions which would add to the flexibility of humans as they age. I emphasize three methods of struggling against human obsolescence, dependency, and unproductivity, which others have also suggested: life cycle education, redistribution of work and play throughout the life cycle, and refinements in the organization of voluntary work.* Movements are occurring on all three points. In regard to the last, older people have been encouraged to participate in the Peace Corps, VISTA, etc., and a national senior service corps has been proposed.

You will note also my stress upon continuity and legacy. I especially have in mind intellectual leadership as carried forward into late life and retirement. As Saveth argued in his National Council on Aging report, this is a valuable resource which our society fails to utilize. (26)

I am anxious also to emphasize that intergenerational conflict is valueless in excess, and that society would gain immeasurably by a more effective interrelationship between the generations.

* Other efforts can be made against obsolescence. Medical care of the aged is poor in our country. Medical school education could go a long way to dispel pessimism. More is known than is applied.

Research Perspectives

Collaboration of Decisionmakers, Social Planners, Educators, Scientists, Humanists, Businessmen, and Old People

We have all been impressed by the lack of collaboration between various scientific disciplines. With respect to a social institution such as retirement, there is a great need to involve decisionmakers, social planners, educators, businessmen, economists, and humanists as well as scientists working in the field of aging and retirement. Moreover, one is often impressed with how frequently we leave out of deliberations representatives of the group affected. Old people themselves should participate in considerations of retirement.

Transcultural Studies

Transcultural studies contribute to understanding both the universal aspects of aging and the influence of varying cultural attitudes and social arrangements upon adaptation and maladaptation in later life. Methodological problems supervene in developmental studies. As Gutmann writes: "Psychological differences between age groups may reflect generational discontinuities—such as contrasting modes of early socialization between the generations—and may have nothing to do with intrinsic development of 'programs.' Thus, a developmental hypothesis of personality change is most strikingly tested by comparisons of different cultures whose child-rearing styles, value orientations, economic systems, and age-grading systems are significantly varied." (27) The manner in which older peoples' roles have evolved in a variety of different cultures in relation to work and retirement could offer much help in our country in effecting both practical first-aid changes and long-range programs.

Studies of Special Groups

The study of special groups calls attention to certain phenomena. Military retirement is a post-World War II phenomenon. In the next 20 years more than a million military personnel will retire. Because retirement is based on length of service rather than on age, many retired military persons are still middle-aged and still have family responsibilities. Study of this group offers an opportunity to isolate somewhat the processes and effects of retirement per se. One should examine the recent studies of McNeil and Giffen. (28) (29)

Social Experiments¹

Medicine, the law, and political leadership provide examples of critical groups which are left to police themselves with respect to ethical standards, mental health, the capacity to function, etc. Mem-

¹ Those which occur naturally, outside of science.

bers of all three groups can die with their boots on and may continue to practice despite disability. To my knowledge, medicine has done relatively little to develop devices to protect the public against disabled doctors of any age. Neither is the public protected from self-employed lawyers, as far as I know. Grievance committees of medical societies and similar committees within bar associations function in some measure. How these mechanisms work would be a legitimate area of study.

With respect to the judiciary, the California court introduced, in the early 1950's, a system worthy of study. The device came into being when a murder trial was interrupted for 4 days because a judge vanished on an alcoholic binge. California's now-retired Chief Justice Phil S. Gibson undertook a study, and then pressed for a State constitutional amendment which would give the California Supreme Court full power to remove unfit judges at every level, including its own. The amendment was approved in 1960. A nine-member commission of judicial qualifications—composed of five judges, two lawyers, and two laymen—was established. Focus is on alleged disability and misconduct. The commission has the power to subpoena medical records and order medical examinations. By 1965 the commission had received 344 formal complaints (any citizen can complain), found 118 worth investigating, and produced 26 resignations. Moreover, retirement benefits at 70 were increased, and the number of judges over 70 in California was reduced from 80 to six between 1959 and 1965.

On the other hand, heavy court loads are heavy, and we need to avail ourselves of capable judges. The law which provides for retirement of Federal judges at 70 also enables them to continue their service as senior judges. This increases the number of judges available for duty, since the President is able to appoint another judge to the regular post vacated by the retired judge.

How applicable would such mechanisms be to other fields? And how successful are they within these judicial systems?

Our political leadership must eventually be subject to appraisal of its physical and mental health. Arnold A. Rogow's study of James Forrestal (30) and Gene Smith's study of Woodrow Wilson (31) raise concerns which cannot be glossed over. Lasswell, as long ago as 1930, stressed the idea of psychopathology in politics. (32) One might speak of gerontopolitics.

As stated earlier, our current retirement practices are arbitrary and inequitable, applying to certain groups and not to others. In the case of our physicians, our judges, and our political leaders, the risks of life and death are too great to leave to chance. It seems to me ironic and paradoxical that *our arbitrary retirement systems apply the least*

to those groups in our society most involved with matters of life and death.

There have been a number of scattered social experiments demonstrating the usefulness of retired persons as teachers. One well-known experiment occurred at the Hastings College of Law of the University of California. During World War II, the college built up a faculty composed of retired law professors. Apparently this was a very successful experiment. One might extend the California experience. Title I of the Higher Education Act provides the opportunity. An educational program could be organized in which older people themselves could serve as instructors of other older people. The physical facilities of a university could be used to the full without draining its faculty.

The introduction of postretirement seminars and counseling would be a worthy social experiment. There has been a great deal of effort with respect to preretirement seminars, particularly within governmental, industrial, and business complexes. It is my impression that the first year after retirement is particularly critical. Postretirement seminars and counseling services could pick up where preretirement seminars have left off and should be immediately available at times of crisis.

The Forum for Professionals and Executives was created in Washington, D.C., in 1965.⁸ This is an assembly for both thought and action for persons concerned with the values and uses of experience and the liberating possibilities of retirement. It also provides me another sample for the direct study of factors conducive or impedative to the continuing usefulness of older people and the transmission of ideas, knowledge, and culture. Evelyn B. Crook, the present dean of the forum, has recently written a scholarly and moving article on human obsolescence.(33) She and several members of the forum are on the subcommittee on employment of the D.C. Interdepartmental Committee on Aging, which is the District of Columbia's counterpart to the State commissions on aging.

The forum provides an example of one possible mechanism by which retired professionals and executives can register their own values and contributions to the community, develop scholarship, preserve intellectual stimulation, and contribute directly to solutions of the problems of older people themselves. The Oliver Wendell Holmes Association, the Institute of Retired Professionals of New York, and the Association of Retired Persons are similar organizations, though they seem to be more interested in education per se than in direct contributions to the community.

⁸ Professionals and executives have great emotional investments in their work; retirement appears to be a particularly difficult process for them.

Creativity and Leadership

These last instances of social experiments lead us to the final item: creativity and leadership. My current research concerns what happens to people of achievement as they age. We know that many continue to be productive, while others falter. We have reason to believe that chronological aging is not solely responsible, but the medical, personal, and social circumstances may be conducive or impeding to the persistence of productivity. (34) If we can learn more about the features which differentiate the two groups, we will, I believe, have made a valuable contribution to our society. Preservation of abilities is of great importance at any age.

Summary

I endeavored to indicate the variety of patterns, adaptive and maladaptive, which occur in retirement. I emphasized the background context of major social, technological, medical, and demographic changes which are occurring at a rapid rate. I indicated that the relatively new social institution of retirement, like other social changes, brings poignant short-term derangements for which solutions must be found. I suggested the need for fundamental reform in the rite of retirement by offering other dignified and valuable roles to the elderly. To facilitate the fulfillment of such roles, I stressed methods of anti-obsolescence, especially life cycle education. I also indicated certain natural life-stage attributes of old age, which should be valued, particularly those elements pertinent to the continuity of the generations.

Among certain research perspectives I spoke of the critical importance of collaboration among persons from many fields, including decisionmakers and old people themselves as well as scientists, educators, and others. Comparisons with other cultures and among special groups throw into relief certain phenomena which might otherwise be concealed. Naturally occurring social experiments should be studied and additional ones introduced. Particularly critical to matters of life and death would be the evolution of criteria of retirement for groups which have so far remained immune, especially medicine, the judiciary, and political leadership. Finally, I observed the importance of determining the characteristics of our intellectual leadership which continues to be productive.

Although I have emphasized the social contribution to patterns of psychological health and psychiatric illness in retirement, I will close with the reminder that a host of other potent variables affect older people in retirement. Since we need always to modify what is modifiable, it is appropriate that we consider revision in the social institution of retirement as a primary order of business.

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Implications for Retirement of Recent Studies on Age and Working Capacity

R. Meredith Belbin, M.D.

What Is Retirement For?

Retirement is an institution of quite recent origin and one that has few parallels outside modern civilization. There is no retirement in the animal kingdom, with one exception: cart horses and racehorses have long enjoyed the conditions of the Great Society. The former are offered retirement "in pastures green" in old age, in return for years of faithful service. Racehorses are even more blessed. They form perhaps the earliest known beneficiaries of an early retirement policy, usually retiring at about the age of 5.

Apart from ungulates, we can record few signs that retirement has become an accepted practice. In primitive society the onset of old age is recognized as a period in which changes in role are sanctioned. Older people undertake responsibilities for the mending of fishing nets, for medicine making, and for other activities that make low demands on physical activity; but people seldom outlive the period in which they are able to perform some significant role in society.

How, then, has retirement arisen? In Great Britain, at least, it has developed through a recognition of the special problems created by medical disability or infirmity associated with old age. For almost 20 years a person in the United Kingdom was entitled at age 70 to a state pension which was properly called an old-age pension. But as Le Gros Clark has pointed out in his recent book, "Work, Age and Leisure," the widening adoption by employers of an earlier retiring age . . . has created a category of men who can no longer in most cases be thought of as 'elderly' in the psychological and physiological sense of that term!" (1)

Is Retirement Different From Unemployment?

With the passage of time the term "retired" has come to signify a class of nonworking persons over a very broad age range. The retired include not only those in their seventies and eighties, but those in their sixties, fifties, and even forties. Men retiring from military service, from civil airline flying, or prematurely from industrial management due to organizational changes or contraction in the scale of operations are still in their prime of life.

In 1950 about 11.7 percent of men in the U.S.A. were in retirement before their 65th year, but by 1960 the figure had grown to 29 percent.

It is tempting to make comparisons between the retired and the unemployed. Both are exempted from work activity by circumstances often beyond their control, but receive compensation in the form of weekly benefits. There may be differences in the scale of benefits and in the criteria for eligibility, but these differences do not form a consistent pattern. For example, in some western countries the lot of the unemployed is generally more favorable than that of pensioners, and in other countries less so.

Are we coming to the use of the term "retired" as a euphemism for unemployed? Perhaps you will reject this contention and will see retirement in a more positive light. If so, perhaps you will be able to answer my question: What is retirement for? Certainly, whatever answer you provide is important, for our whole strategy in approaching problems of retirement depends on it. Close analysis of the various possible answers that can be made to my question may reveal that retirement is being set up to fulfill a variety of purposes, and yet serves none of them very well.

Reasons for Retirement

Decline in Health or Capacity

First of all, retirement exists in the expectation that persons beyond a certain age will suffer a chronic loss in fitness or capacity so that they will be unable to continue to work effectively. Certainly if this was ever true it is becoming less true every year. The health of those in later maturity is being steadily improved by better health services, while the nature of work is progressively changing so as to become more demanding of skill and less demanding of effort and physical prowess. And yet the age of retirement is moving steadily downward. No doubt if ill health were the essential reason for retirement, health, rather than arbitrarily set chronological age, would be used as a direct criterion for determining the age of retirement.

Cost Accounting

What other reasons have we for retirement? One is that it acts as a device—of a socially acceptable character—for discharging employees and managers who have reached the peak of their earnings through seniority, and whose continued employment cannot be justified with regards to the cost-effectiveness ratio or because they block promotion channels. An increasing number of corporations seem to favor early retirement for this reason. An alternative solution to the problem is periodic retraining during work life so as to insure that occupational skills do not become obsolescent.

Labor Force Size

Next we come to a reason that was brought to the fore by American gerontologists at the 1966 gerontological congress in Vienna: that retirement serves as a means of removing surplus labor from the upper end of the age scale and thus providing sufficient jobs to insure full employment among the young adults entering the labor force. Retirement is, therefore, a device for reducing the number of unemployed persons. In effect, however, this serves to underline the interchangeability of the two terms: the retired and the unemployed.

Perhaps it should be noted that the policy of withdrawing people from the labor force to this end is the exact opposite of the policy being advocated by the Organization for Economic Cooperation and Development (OECD). Under OECD's active manpower policy, an attempt is being made to increase the prosperity of society and the incomes of all its members by creating and filling as many jobs as possible and by bringing marginal groups, including old people, into the labor force.

Preference

Finally, we come to what many people consider the crucial reason for retirement—that is, that people want to retire. The evidence is not altogether unambiguous. Studies carried out on workers retiring from the automobile industry indicate that workers favor retirement if there is adequate financial security. This finding, however, is limited in generality, for there is some evidence that in the automobile industry there is a good deal of work stress which is particularly disliked by older workers.

Some further evidence about attitudes toward retirement has come from two recent British studies. W. E. Beveridge interviewed 101 men who had been retired from five firms in northwest London for between 6 months and 6 years. (2) The interview included a cross section of workers, skilled and unskilled. The attitudes they expressed showed mixed feelings toward retirement. Asked what they missed most, 75 mentioned the companionship of the workplace against only 27 who referred to money. Typical comments were: "You're unwanted, you're

on the scrap heap," and "You used to go in in the morning and it was 'Hi, George,' from your friends. You miss all that." Beveridge observed that companionship was mentioned much more than any other factor, although few of the men were living alone. The companionship they missed seemed to be that which they had obtained as valued members of active working groups.

One is reminded of the experiences of British railway workers. It is not uncommon for retired train maintenance men to follow their work gangs and watch them work from over the fence. The impulse to work is sometimes so strong that work is simulated in retirement. One case that comes to mind is that of a retired signaller who built his own signal box and rail track and trained his wife to send trains past the box at the scheduled times to which he was accustomed, while he recorded any that were late.

But to return to quantitative measures, Martin and Doran interviewed 684 men in Lancashire in 1965. (3) The interviewees consisted of people approaching retirement from the age of 55 onward, together with people who had been in retirement for varying periods. Various questions were asked on the perception of retirement. The interviewees were asked to express a preference between retirement and some other alternative.

Their responses varied according to distance from retirement and according to the season in which the interview was conducted. People seemed less willing to accept retirement before they retired than afterward and less willing to accept it in winter than in summer. The overall figures do not lend support to the view that there is an overwhelming choice of retirement, either by the preretired or the retired. The results do not justify the supposition that retirement is an institution developed for the benefit of those in later maturity.

We believe, therefore, that retirement is being used increasingly as a means of getting rid of people in late maturity for one reason or another. We believe that the current attitudes of society to those in retirement are simply amplifications of attitudes already evident toward many in middle maturity. Middle-aged workers are valued in occupational life when their past work experience is directly related to current needs. But when current needs make new demands, the middle-aged worker is rejected because of his presumed lack of adaptability.

Training and Reemploying Older Workers

At this point let me make a short digression to refer to the work of the Unit for Research Into Problems of Industrial Retraining at Cambridge, England. During the past few years the unit has been analyzing the problems of older workers in training—a subject which I take to represent the core of many problems in this area. As a result

of experimental work, new training methods have been developed and applied in a number of industries. (4) (5) The work has also been extended on an international scale through the OECD, and I am currently engaged in demonstration projects in the training of older workers in four member countries.

Modified Training Methods

We have found that training performance can be greatly improved by modifying training methods to suit older trainees. For example, in skills embodying the understanding of principles we have endeavored to avoid direct instruction methods, especially verbal instruction, and have concentrated on developing discovery learning. This demands very careful preparation of training material so that the right sort of discoveries can be made through controlled experience.

Another important feature of a successful method of training older workers is that of overcoming what is known as "interference" in the learning situation. We give recognition to results of scientific research in exploring the relation between age and memory. Contrary to popular conception, short-term memory does not fall markedly with age among healthy subjects. However, there is a tendency toward memory loss whenever distraction factors are present, whether they occur before learning, during learning, or after learning. This again calls for careful design of the conditions surrounding learning.

Turning to operator skills, we have had to take special account of the difficulties which older people have in overcoming errors once committed. The emphasis has, therefore, fallen on error-free learning. One of the ways of achieving this has been to reduce the rate of responding. So we have developed a technique called slow-motion training.

Trainability Testing

One of the factors upon which success in training depends is the suitability of the trainee. Some of our current work, therefore, has been concerned with developing selection procedures that are valid for the higher age group. For various reasons, we have rejected taking so-called aptitudes or measures of aptitude. Instead, we have set out to develop trainability tests. In these a person is asked to learn a short task embodying some critical elements of the new job, and his learning performance is measured.

Our results show that with refined methods of selection and training it is possible to place older workers in jobs where they can both contribute to economic growth and improve their incomes. The disadvantages associated with age and lack of adaptability may be overcome by overtraining—that is, by providing more training than would normally be considered necessary for a job. If we consider other aids, such as counseling and the use of job developers, we can see that the potential for the placement of retired people in work is quite considerable.

Job Finding

In England there are six known job-finding agencies for the elderly—at Cambridge, Stoke-on-Trent, Luton, Stevenage, Oxford, and Slough. Much of this work has been inspired by the need to overcome physical and mental malaise in the elderly. The agencies cater principally to the fit and able who feel their retirement to be untimely and arbitrary. Even without the sophisticated aids to which we have referred, the success of these agencies in finding jobs for the elderly has been remarkable. In Slough, for example, it is claimed that about six old-age pensioners a day are being found part-time jobs. This agency, inspired and established by the Medical Officer of Health for Slough, is staffed by volunteers from the Slough Council for Social Service and makes no charge to either employer or employee.

Disengagement or Cybernetics?

Perhaps in the long run the factors that will exert most influence on retirement and on employment opportunities for older people are not the individual wishes of the retired or of employers, but the attitudes of society to retirement. Is it a good thing that a sizable segment of the population should "contract out" of society after reaching the age of 55, 60, or 65? What effect does this contracting out have on the individuals themselves?

One theory that has been advanced is that this "contracting out" of society is linked with the notion of intrinsic disengagement. (6) Once older people become detached from work and society, they become psychologically disengaged. This disengagement creates a vicious circle. Because they are disengaged they become less acceptable to society, which now tends to shun them, so causing them to become more and more inward looking and hence more disengaged. Certainly those who have become recognizably disengaged are likely to find it very difficult to find a point of reentry to society.

It seems a fair proposition that many of the problems experienced with age—that is, problems in finding and in adapting to new jobs in middle age and in finding a satisfactory way of living in retirement—stem from the rigidities under which activities are structured throughout life. For many people, life after infancy is divided into three watertight compartments: education, work activity, and retirement; and each of these segments has finite limits with no overlap. Perhaps it is not surprising that at the end of Stage 1 we find the professional student who excels at learning but is incapable of the self-discipline needed in working at a job in a steady manner. Near the end of Stage 2 we find the employee who performs his lifelong job with reasonable competence, but who is strikingly poor at learning anything new, even a simple job change. Toward the end of Stage 3 we

find people who, though in reasonable health, seem to have little capacity either for learning or for work.

Would it not be better if some work activities were carried out during Stage 1, some educational activities in Stage 2, and some of both in Stage 3? What would be the effects of such a change of the life plan on the psychology of aging?

The belief that such changes would have a beneficial effect is in line with much evidence that has come out of studies of aging in recent years. Consider, for example, the importance of continuing to engage in learning and training activities in the light of the views reached by the Smiths in their recent book, "Cybernetic Principles of Learning and Educational Design." (7)

In cybernetic theory, learning involves changes in the detector neurons and systems of receptor and sensorimotor control. To become functional early in life, such neurons must be activated. To retain their precision of control, they must be reactivated repeatedly. We believe that aging involves deterioration of neuronic control which proceeds more rapidly if the cybernetic control systems are not used.

But we need not rely on the evidence of cybernetic theory or of neurophysiology. There is evidence of a more direct character. Let us consider the quality of mental flexibility and the capacity to learn in middle age in relation to practice.

Recently our unit in Cambridge carried out a study of the performance of persons undergoing a course of home study in preparation for an exam in fuel efficiency. (8) All of the students were boiler operators and most were of a low educational level. Their examination scores on the practical and theoretical tests could be related to their age and to certain factors that were elicited in response to a questionnaire about their backgrounds.

One of the questions asked was whether they had engaged in any further studies since leaving school, and, if so, what ones. On the basis of the replies, examinees were sorted into two groups: continuers and noncontinuers. The outstanding fact was that those who had continued to engage in some form of learning since leaving school obtained substantially better scores in the theoretical facts test than did those who had not, although in the practical score there was no significant difference.

The practical tests enabled boiler operators to make use of their practical experience, but the theoretical tests made considerable demands on new learning. This new learning was successfully accomplished by those whose intermittent studies since leaving school were nearly all channeled into unrelated spheres of interest including first aid, music, trade union affairs, etc. Similar results for continuers and noncontinuers have been found for those taking a kiln burners course and a coal-preparation officers course.

It seems evident, then, that some form of educational activity can have a far-reaching effect in middle age, an effect that facilitates job changes. Perhaps if education could continue at periods during working life it would also facilitate retirement, for if activity is to continue into retirement, new learning is needed.

Indeed, Martin and Doran, in a recent study of the housing problems of the elderly, drew attention to the many new roles which elderly people can adopt in a community so as to fulfill their own communal needs.⁽⁹⁾ This mutual help can give much more satisfaction than externally organized assistance. The authors point out that training has an important part to play, especially in relation to certain specialized roles. They cite as an example the value of chiropody in such a community. The retired have not as yet been equipped and prepared for many of the new roles.

Conclusions

May I now return to the question I posed at the beginning when I asked what retirement was for? I am still not sure of the answer. But let us agree that, if there is to be a Stage 3 in the life process, it should embody new forms of learning and activity, whether these consist of part-time occupational activities, community activities of the self-help type advocated by Martin and Doran, or the pursuit of leisure activities.

Education and training are the means by which difficult changes are best accomplished. Our studies in the unit at Cambridge have so far been concentrated on improving the methods and techniques for training those in middle maturity for immediate job changes. Our experiences have shown us how little has been done in this direction in society and how much there is to do. These are only Stage 2 activities, and yet this is pioneering territory.

Stage 3—that of final retirement—seems a long way off and looks even less charted and less conquerable. Yet I believe that if we are now more conscious of the true problems, we shall be ready to take the first steps forward to their solution.

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Discussion Following R. Meredith Belbin's Paper

Joseph H. Britton, Ph. D.

We appreciate the fact that our British colleague came to discuss his and his associates' research on age and change in working capacity as it relates to retirement. Dr. Belbin's report and his published accounts of the work are noteworthy examples of clarity and conciseness. Dr. Belbin emphasized the real life aspects of the tasks, and this makes his research all the more useful for application.

The studies concern basic research problems of changes in capacity with age, and they also concern problems of devising ways in which older adults can be taught or assisted to deal with these changes. The changes are largely decrements—a reality we need to face squarely. With age can come increments of efficiency and wisdom derived from experience, but the trouble, it seems to me, is that such increments cannot be utilized in most jobs.

Age Differentials in Learning and Decisionmaking

During the discussion an important implication of the studies was clarified. Probably there are age trends in the effects of social factors on learning. Dr. Belbin and his colleagues believe that there is a social interference effect in developing the older person's understanding of skills. The evidence suggests that, except for well-educated people with good ability to acquire knowledge through verbal communication, verbal instruction may interfere with the learning of a skill. The older person is likely to say, "I can do it better myself. Let me figure it out for myself." An advantage of the discovery method is that the person is not disorganized by the effect of another person on him. With age, there is increasing difference of patterns among individuals. New

learning has to be structured. With verbal instruction, the teacher tries to impose his way of doing things on the trainee, and the teacher's way may not be meaningful to the learner.

Recent studies of decisionmaking have shown that the quality of decisions is not related to age, but that the rate of making decisions definitely is. Differentials between the age of the instructor and those he is teaching may create a situation in which this differential hampers the learning process. With the verbal instruction method, a trainer is using a paced form of learning. With the discovery method, he lets the trainee set his own pace; the older person can function at his own rate of speed.

Implications of the Studies for Retirement in Context

I want to comment on some aspects of Dr. Belbin's paper in relation to the context and meaning of man's work role. Certainly the context of an individual's retirement from work is itself complex, but it is the *interaction* of the person functioning with his work and nonwork environment which is crucial. Thus one must examine a personal biologic and psychic system interacting with social and economic systems. The aging individual, with changing abilities and resources, should be viewed as a family member, for example, and also as a member of a larger social and economic system. To view retirement only as an individual's personal problem is as shortsighted as viewing retirement only as an employment or economic problem. Retirement is best seen in terms of the interaction of these individual and social systems.

Limitations of Retraining as a Solution to the Problem

The topic for this conference, retirement processes and the determinants and consequences of retirement, implies criteria of success in this period of life. At the conference it was said that ultimately our efforts should improve the individual's well-being, and the quality of his life. If individuals commonly could retire happily and could become absorbed in new tasks which bring them satisfaction and which do not interfere with others' economic or psychological well-being, probably there would be no such conference. Presumably this is not the case.

Dr. Belbin's solution, apparently, would be to deal with retirement problems by not retiring. I think that he would have the worker continue to work, if not by using one skill, then by using another. The question, then, would be how workers can be trained and retrained for jobs commensurate with their changing interests and capacities, and with the available jobs in the labor market.

Again, I say that the individual's problem must be placed in the larger context. The work of Dr. Belbin and his associates suggests ways

in which training programs can be adapted to cope with difficulties older persons have in learning. I doubt that the problems of retirement as we face them in this country can be solved by such educational efforts. Delaying retirement or severance from job might retard decline in some cases, and this would be good. However, considering the magnitude of the problem, I do not believe that we can answer questions of well-being in retirement simply by trying to change older persons' abilities or by helping them change jobs. I am told that American automobile manufacturers claim that the industry possesses technical knowledge to automate almost completely their assembly line operation. One executive reported that a changeover would have such grave consequences for the worker that the industry dared not use this knowledge at the present time.

Attempting to develop new skills and to find new jobs for the elderly can help some individuals, but I feel that this plan does not cope with the larger economic and technical problems. Efforts to retrain workers at advanced ages and to find jobs for them are undoubtedly useful for a few, but I feel that such efforts can scarcely touch the problem.

The Meanings of Work and Retirement

Part of the question concerns the meaning or significance of work as a factor in well-being. Recently I heard a radio reporter claim that some two-thirds of workers said that if they had a free choice they doubted that they would choose the same occupation again. This suggests how meaningful work is to some individuals.

To what extent is work a central focus in life? Williams and Wirths' study of the "lives through the years" of Kansas City adults in their fifties, sixties, seventies, and eighties showed that for relatively few was work a "style of life." (1) As these authors said,

Retirement has frequently been claimed to be a central problem in the aging process, perhaps its most important crisis of transition. And yet, as a style of life as judged by orientation, values, and the ways decisions were made, the World of Work appeared in only 25 of the 108 cases in this panel, or less than one-sixth. . . . As might be expected, more men than women had this style, but the degree of sex difference was rather surprising, 20 to 5. Many of the women in this panel worked, but in only five cases did work become their style of life. (1)

And, of course, not all of their subjects were retired.

The authors judged the degree of "success" of the subjects in each style of life as they grew older according to the degrees of their "autonomy and persistence" and "independence or dependence." On the whole, individuals in whose style of life work was central were aging successfully. However, the author describes individuals with this style of life in retirement who were not so successful, presumably because they did not have enough responsibility.

Williams and Wirths identified another group of subjects whose style of life they called "easing through life with minimal involve-

ment." Among these adults there seemed to be no central organizing theme of living. They seemed minimally committed to marriage, family, and work. There were persons with this style at all socioeconomic levels and in all age groups, but they were primarily men. The investigators showed that these people could also age successfully, according to the criteria of autonomy, persistence, and independence.

When we attempt to train workers for new jobs and seek to continue jobs for the retired, we seem to be assuming that continued and "involved" activity in work is necessary for one's psychological well-being. Those who were "minimally involved," however, were aging successfully by the terms of this Kansas City study. Apparently they had not disengaged recently but were continuing a long-range pattern of living. This underscores the predictive value of the concept of life style and also the need for looking at the degree of continuity in the pattern of living.

The point here is that work may be a means to earn a livelihood but not universally a central source of orientation or satisfaction. If a man's continued work is not necessary for providing sustenance, the solution for his well-being in retirement does not seem to be in enabling him to continue working.

Perhaps a developmental or a life stage overlay in which styles of inner life and well-being could change over time should be added, with reference to the later years, especially. There may be change in emphasis over the years in regard to morale (well-being), from a major emphasis on involvement in overt work-oriented activities, to emphasis on involvement with friends and family in a life space which is diminishing, and then to emphasis on "past" involvements rather than on present capacity to be involved to any extent. This view suggests also that we delineate subperiods within the retirement years; certainly the typical 65-year-old is quite different from the 85- or 90-year-old. I would not consider this particular pattern inevitable nor universal, however.

As Dr. Belbin has suggested, when we talk about retirement we seem to equate the "retired," the "elderly," and the "unemployed." We imply a sense of socially initiated deprivation with each of the terms. For the retiree we imply some degree of chronic loss in fitness for work, at least as judged by the marketability of his skill. Retirement is a variety of things to a variety of people, (2) but we must separate the problems implied by each of these terms. They are not synonymous.

Some people believe that retirement is a reward for a lifetime of work, a lifting of a lifetime burden, which Dr. Belbin did not mention. Work has still another meaning which gives some understanding of retirement and what to do about it. Work is a routine, an organizer for one's time. In retirement, some people miss having to rise at a certain hour and to ready themselves for their daily activities. Some

find something to do and a place to go each day in the recreation day-care center programs that are operative during working hours. This is obviously only a partial answer to the problem.

Forced Retirement of the Physically Fit

In Britain, many executives who are eased out of companies for various reasons by being offered early retirement under conditions they find unacceptable, find it hard to get back into employment; they apply for a great many jobs and are rejected. Some of them have recently formed a society representing the interests of displaced older managers. They are developing their own ways of getting back into employment. If we are going to retire numbers of marginally fit people, not just those who are unproductive because of failing health, we must ask ourselves what institutions we have for coping with their problems. Moreover, are the social institutions able to handle the great variety of problems there will be?

The Trend Toward Longer Retirement

The intermediate phase of life between the close of the working period and the onset of old age, a period now of 10 to 15 years, will increase with the advance of medicine. The retirement age of 65 was accepted in the United States earlier than in Britain, and the drop in retirement age below 65 began sooner in the United States than is likely in Britain. As many people have said, increased longevity will mean more time added to the retirement period, not to the working period. There will then be a longer period of retirement but not of old age. Is there any way to reverse this trend, or should it be reversed, by changing the age of retirement?

People discussing this matter tend to think largely in terms of their own preferences about retirement. Individual attitudes are highly variable. Retirement poses problems for some people and none for others. In examining the problems of aging one always finds an increasing divergence among individuals.

National Differences

Another issue concerning the context of retirement is the matter of national differences. Roger and Louise Barker analyzed the "psychological ecology" of a British village as compared with a Midwestern American village, and they studied the nature of the social participation of persons of various age groups.⁽³⁾ The environment of old people in the Midwest was greater in terms of "territorial range (extent), in penetration (depth), and in exposure to behavior settings and action patterns (duration) than the environment of Yoredale old people." Thus the social life space of the Americans was greater than that of the British old people. Current research on national variations in retirement should add to knowledge on this topic.⁽⁴⁾

Seasonal Variations

Another interesting finding of Dr. Belbin is the seasonal variation in perception of retirement. This is so simple and logical a matter that it is easily overlooked in research.

Age Differences

"Older workers," as Dr. Belbin has used the term and as it is generally used by others, are much younger than the usual retiree. Several States in this country have laws which have made illegal the use of age as a criterion of employment. Pennsylvania is one of them. For a number of years we have had an advisory board concerned with the problems of older workers. It was charged by the legislature with the job of educating the public, especially employers, as a way of alleviating the difficulties older workers face in getting jobs. Altering industrial conditions and technological changes affect older workers disproportionately, as is well known. As a member of that board, I believe that the success has not been great.

Effects of Compartmentalized Life Stages

This underscores Dr. Belbin's point that problems of retirement and unemployment at any age are related to the attitudes of society and to the "rigidity," as he said, of compartmentalizing life into stages of education, work, and then retirement or leisure. He argued for combining these activities throughout life. He spoke of the beneficial effects of continued learning activities of any sort. Those who had carried the education phase of life into the working phase of life by continued learning were able to function better in Dr. Belbin's learning tasks than were those who had not. Assuming initial comparability of the two groups, this is another interesting finding.

Dr. Belbin's comments about mixing education, work, and retirement or leisure throughout the lifespan suggest the inadvisability of investing oneself in only one activity at a time. Is this diversity of activity and values a valid correlate of well-being in later maturity? In all social class levels? Is such diversity simply illustrative of one style of life? Does an additional emotional investment really assist morale when one can no longer work, or when one's children leave home, or when one's spouse dies?

Is Money the Problem?

The person who is forced to retire on a pension is faced with the fact that wages continue to go while his pension remains static. He may start out with a 75-percent loss of income and soon have a 90-percent loss. That is traumatic. There is nothing to do but try to augment the pension. An experiment in which the ably retired would be paid the

same amount of money they were paid before retirement could determine what they really prefer to do, continue working or retire. That is the only method that will give a meaningful answer about what the able-bodied elderly want to do.

In addition, social position is inseparable from wages in our society, and the elderly are at a serious disadvantage in this regard. In Shanas' cross-national study, 50 percent of the white-collar workers said that what they missed most about their work was money.⁽⁵⁾

One group that could be studied profitably to see what they do upon retirement is military officers, who retire on three-quarters of their base pay, with other benefits, after 30 years of service. Generally they are capable of continuing to work, and many of them do. In both England and the United States, many of them try to get back into work, in spite of good pensions.

Retirement in Relation to the Total Economy

In the American economy retirement is a problem where money is a problem. We do not know whether it would continue to be a problem if people had money, and this would be an expensive test to run. In our economy, income comes from working. Therefore, why is it surprising that when one stops working his income stops and he is in a bad spot?

In the proposed experiment of paying capable retired persons what they had received before retirement, where would the money come from? People are paid for productive work. The opportunity for retirement is a function of the productivity of people who are not retired; hence retirement depends upon the productivity of the total economy. This raises the question of where in the life cycle the individual's contribution to the economy should be made. A significant contribution to solution of the economic problem can be made by increasing the age at which people enter the work force, just as can be done by lowering the age at which they leave it.

We say that productivity is the thing for which one is paid so that he can buy what he wants. But we also say that we are not producing what we need. Should we not consider the question of how we get what we need, and not simply how we get money? What contribution can the people who have left the work force make by producing non-conventional goods? How can retired people be brought into this picture? The problem is how to redistribute income-earning activity so as to pay for the total range of products that our economy wants. This includes an array of goods that could be produced outside the productive economy as currently defined. The gross national product (GNP) does not include or give opportunity for evaluating many social goods that should be produced.

Society could make this redistribution. However, as long as people refuse to face the necessity of redistributing payments or incentives in relation to some criteria of desirable productivity other than GNP, society will be caught in this trap. Society calls the activity involved in the new production a job, and offers to pay a wage for it. The individual is then recorded as another employed person. Presumably many so-called jobs could be created that would supply retired people with what they would consider work.

Some economists believe that productivity is increasing fast enough to take care of both the young and the old who are not, under present definitions, contributing to the GNP. Perhaps, even without redefining GNP, we could devote more money to the young and the old in the form of schooling, pensions, etc. Some say that, if it will make people happier to call it pay instead of pensions, call it pay, whether or not it is added to GNP. If there are jobs the elderly want to do and can do, give them four times the amount of their pension, and call it pay. All will be well, if the conventional GNP has enough increase in it to pay these extra dividends.

On the other hand, the reason needed social services are not produced under the present scheme is that society does not put enough value on those services. If, instead of retiring people early, we used them to produce much-needed services that otherwise would not be produced, who would pay? In the first level of analysis, the Federal Government would. If by doing this the Federal Government stimulated an increase in total output equal to the new expenditure, everybody would be in favor of it. But it is not that simple or that clear. If it were, these social services would be produced now. We have a hard time recruiting public schoolteachers because we do not value their services highly enough to induce people to become teachers. The same is true with health and medical services at low levels of professional competence. Society is not likely suddenly to become willing to pay for these things.

The possibility should be explored that retired people can be admitted to the labor force without becoming competitive with younger workers. This would be a device by which social services could be increased at less cost. Society does have welfare objectives, and we do conceive of GNP as a measure of welfare. This direction for public policy should be explored in terms of social benefits and possible savings.

There would be much Federal spending in sectors of the economy for which there is no real market. For example, aid and welfare programs for older people, for whom there is no employment market, would be introduced. But when one starts applying the scheme in the areas of service personnel at low skill levels in hospitals, etc., it is questionable whether or not the Federal Government can enter the

employment arena without bringing about an economic backlash. The effect would be to introduce factors that would lead to restructuring certain areas of prices and other matters. In other words, the Government would be competing with private people in the employment market.

The economic problem is a difficult one. Several different solutions are possible. The labor market can be reduced by retarding the movement of young people into it through more education, or by lowering retirement age. Some believe that the problem has to be attacked at both ends, not just at the later end. Alternatively, the problem can be solved by reducing the length of the work year and the workweek throughout the lifespan. On the other hand, there are many things that could be used better now than leisure, and perhaps we need to think more of obtaining the desired values than of restricting values by cutting productivity. Growth in the economy could be taken in a variety of ways, including leisure and human services.

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Patterns of Retirement in San Francisco

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Comments on the Meaning of Increasing Longevity

It was said earlier in this conference that longevity is increasing. I am not sure that we have looked at what this means. At a recent Western Interstate Conference for Higher Education (WICHE), Dr. Ralph Goldman of the University of California at Los Angeles used a diagram something like the one I have sketched (fig. 1) to illustrate this point, which seems to be important in relation to the whole area of aging.

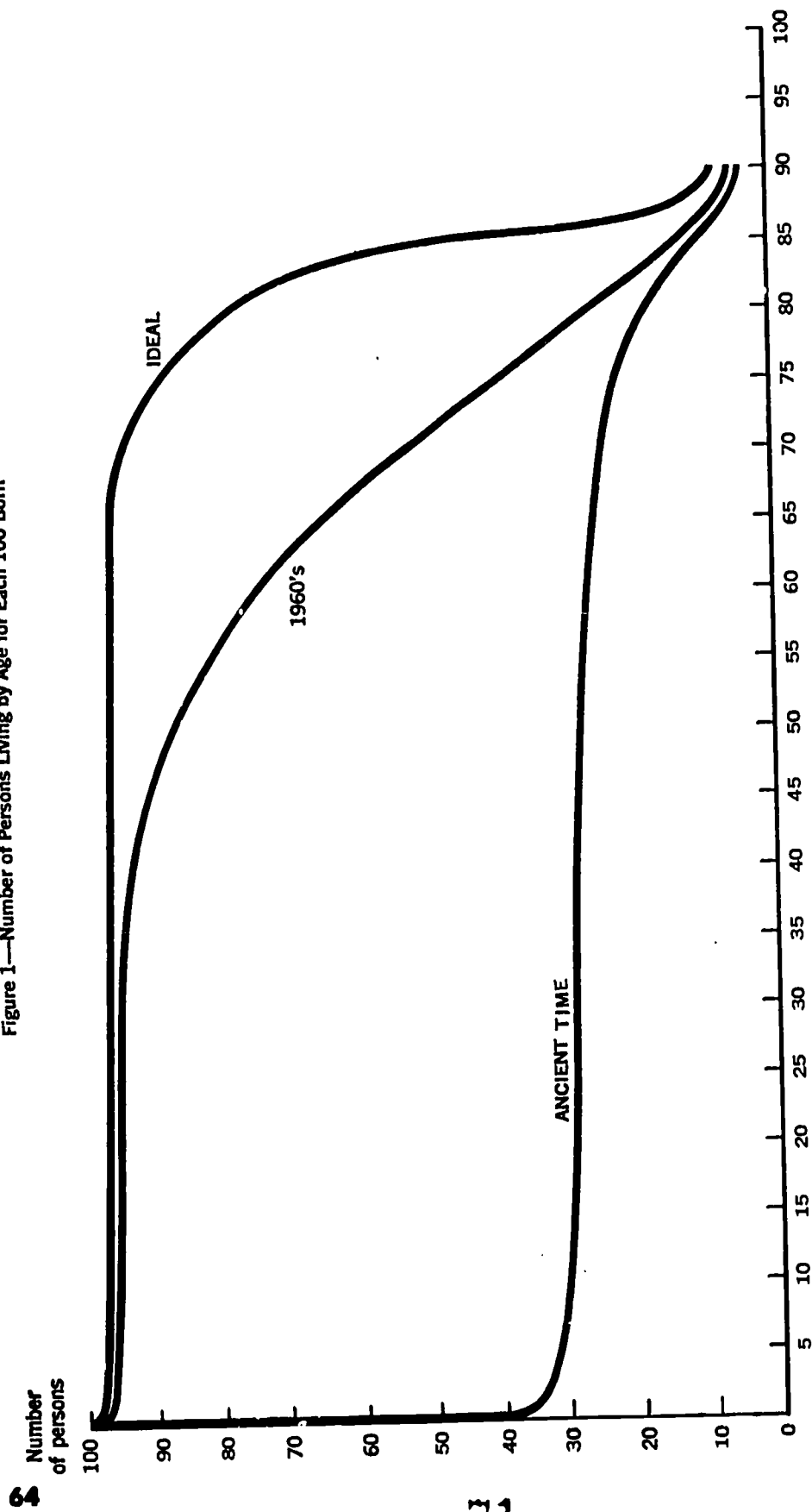
The curve representing some time in the distant past shows a sharp drop at the left as infant mortality rates took a heavy toll of life; then it levels off and extends on a gradual decline to a point near age 75, where it drops again and swings out in a normal distribution. In the curve representing the 1960's, the leveling occurs much earlier, but there is the gradual decline again, representing accidents, illnesses, and deaths from various causes. In the latest stage of the lifespan, the curve for the 1960's drops and fits into almost the same distribution as that for ancient times.

Dr. Goldman suggested that, with ideal conditions, infant mortality would be reduced even further, accidental deaths would be fewer, and the point at which the curve begins to fall rapidly would be shifted considerably, to about age 85. What has happened through the ages is that the area under the curve has been expanded. A greater number of people live longer lives.

The potential for the future is to lengthen life in this way: not necessarily to increase the number of years people may live, but to

¹ With the collaboration of Betsy C. Robinson.

Figure 1—Number of Persons Living by Age for Each 100 Born



increase the number of people who will live active lives to older ages. Some comparisons have been made between the patriarchal societies and others in which old age was valued but in which few people lived to advanced ages, and our own society in which many people are growing old. When we talk about retirement we are concerned with the *quality* of life for those whom our society has kept alive to reach the older ages.

The San Francisco Study

Our contribution to this workshop is basically a description of data on retirement drawn entirely from the Langley Porter Institute Studies on Aging. We are aware of the pertinent literature; however, we have focused exclusively on Langley Porter research studies. These studies will be described briefly in order to provide a background understanding of the nature of our data. We will then describe the main subgroups to be considered, patterns of retirement, characteristics of the retired, the attitudinal measures which we found to relate to retirement, and some interpretations which may provide continuity to the data. We shall conclude with some suggestions for future research.

Description of the Langley Porter Geriatric Research Program

The Geriatrics Research Program is a long-range, interdisciplinary series of studies being conducted by psychiatrists, psychologists, and social scientists at Langley Porter Neuropsychiatric Institute.² The overall objectives are to contribute to policy, planning, and treatment for the mentally disturbed aged and to add to the growing body of theory on aging as a developmental process.

At present the research involves the analysis of data gathered from nearly 1,200 elderly persons, half of them admitted to the psychiatric ward of the San Francisco Hospital in 1959, and the other half drawn as a random stratified sample of persons in the community. The subjects were seen three times at approximately annual intervals. Some of the areas explored and already reported include clinical neuropathologic correlations in senile and cerebral arteriosclerotic psychosis; social isolation and mental illness in old age; the social, psychologic, and physical correlates of psychiatric disability in the community aged; stress and adjustment in old age; the organic brain syndrome in old age; and the anthropology of aging. Findings have been presented in three books, now published or in press, and in some 80 articles in professional journals. Current projects include an analysis of change

²This program has for the most part been supported by Public Health Service Grant (NIMH) MH-00145, with supplementary grants from the California Department of Mental Hygiene. Dr. Alexander Simon and Marjorie Fiske Lowenthal are the coinvestigators of this program.

in the mentally-ill sample; the relationship between time perspectives and adjustment; the role of intimacy in adaptation; an analysis of ethnic and cultural factors as they relate to aging adjustment; and an exploratory study of the relationship between perceived goals and adjustment.

Comparisons of Retired and Working Subjects in Community and Hospital Samples

Most of the data presented here are based on analysis of our community sample. Where possible, however, hospital subjects are compared with community subjects for purposes of gaining additional insight. Comparisons made in this paper are based on response categories established for other research purposes.

The community sample was selected to include equal numbers of men and women and equal numbers of persons in three age groups (60-64, 65-74, and 75 and over). Hospital subjects were selected as a consequence of their hospitalization, and though they divide into roughly equal sex groups (47 percent male, 53 percent female), the proportions in the three age categories are quite different from the proportion in the community sample (14 percent 60-64, 39 percent 65-74, and 47 percent 75 and over).

At the time of the baseline interview 30 percent of the community subjects were employed and 46 percent were retired. The remaining 24 percent were housewives. We have included among the retired 17 persons, or 3 percent of the total sample, who claim to be unemployed. The low probability that these people will find employment, at least for any length of time, influenced our including them with the retired. The fact that they are still looking for work undoubtedly affects their attitudes. We surmise, however, that the attitudes they express will be accounted for in the overall presentation.

Among our hospital subjects at the time of the baseline interview only 3 percent were employed, 71 percent were retired, and 26 percent were housewives. The proportion of housewives in the community and hospital samples is approximately the same. The community subjects, however, are 10 times more likely to be employed than are the hospital subjects. Part of this difference can be attributed to the fact that persons in the hospital sample, as noted above, are older than those in the community sample; and we have found, as we might expect, that the proportion of retired subjects does increase with age.

Age

Of those persons in the community sample who pursued occupations during most of their adult lives, 60 percent were retired at baseline. The proportion increases from 7 percent in the youngest age category

to 65 and 78 percent for the middle and oldest grouping, respectively. While a progressive increase with age in the proportion of retired subjects can also be seen in the hospital sample, the proportion in each category is considerably higher than for the community subjects (81, 95, and 98 percent, respectively, for the three age categories). Obviously, age is of only limited significance in accounting for the difference between the samples.

Level of Education

A second factor contributing to this difference is the educational level attained by the sample members. The better the education, the less likely one is to be retired. At the same time, community subjects were more likely to be better educated than were hospital subjects. Of retired men in the community, 75 percent had not completed high school, 13 percent had completed high school, and 12 percent had 1 or more years of college. When this is compared to the same proportions for all men in the community (66, 18, and 16 percent, respectively), it suggests that better educated men continue work to a later age. The educational attainments of all men in the hospital sample were: 77 percent had not completed high school, 16 percent had completed high school, and only 7 percent had completed 1 or more years of college.

Occupational Status

A third factor which relates to the proportional differences in retirement between our two samples is occupational status. Again, the community sample is better off than the hospital sample. Those who have the highest occupational status are most likely to continue working and are more likely to be found among the community subjects than among hospital subjects. In the community sample, about half of the white-collar and blue-collar men (49 and 47 percent, respectively) were retired prior to age 70, compared to less than a quarter (22 percent) of those classified as professional or managerial. Looked at another way, of the younger men, 58 percent of those retired were blue-collar, 29 percent were white-collar, and only 13 percent were professional or managerial; of the retired men over age 70, 45 percent were blue-collar, 22 percent were white-collar, and 33 percent were professional or managerial. Where the community sample was approximately 50 percent blue-collar, the hospital sample was more than 60 percent blue-collar. On the other hand, where 25 percent of the community men were classified as professional or managerial, less than 14 percent of the hospital men were so classified.

Health Status and History

One of the original hypotheses of the Langley Porter studies was that retirement is a likely precipitant to mental illness in old age, but

little evidence has been found to support this assumption. Even though most of the hospital subjects were retired, for the vast majority retirement had occurred many years before hospitalization. For this reason we have looked to other factors to account for the differential proportions of retired subjects in the two samples. In fact it would seem more consistent with the data to suggest that the same factors which are producing the larger proportion of retired subjects in the hospital sample are also influencing the subjects' mental health status. The factor which has recurred again and again in the consequential network is physical health.

Consistent with other research in this area, our studies have underscored the crucial relation between physical condition and mental illness in older subjects. In the first major study growing out of our research, Lowenthal reported that physical problems were seen as involved in the decision-making that led to the psychiatric ward in approximately two-thirds of the cases, and precipitated the psychiatric illness in 10 percent.(1) Physical factors were clinically assessed as causative in the 55 percent of hospital subjects diagnosed as suffering from acute brain syndrome as well as in the 32 percent whose diagnoses included arteriosclerotic brain damage. Even for those persons diagnosed as suffering from psychogenic disorders, studies of health histories showed that physical problems often preceded the development of psychiatric symptoms.

The difference between our two samples in terms of their relative health status is consistently significant on a number of health status measures. For example, in the 10 years preceding the baseline interview or since age 60, whichever was applicable, more than 2½ times as many hospital as community subjects had been hospitalized three or more times (24 and 9 percent, respectively). When the two samples are compared in terms of a measure of locomotion, the contrast is even more apparent. While more than half of the hospital subjects were unable to get out of the house alone (56 percent), less than 4 percent of the community subjects were so restricted.(2)

The relationship between physical health and retirement is obvious. What has been said so far, however, has been meant to suggest that the factors which relate to retirement, i.e., age, education, occupational status, and physical health, can account for the bulk of the difference between our hospital and community subjects in terms of their differential retirement rates. Consequently, it can be said that retirement as a precipitant of mental illness in old age occurs only under rather special circumstances. We will return to this point later. For now, let us turn to a more detailed examination of patterns of retirement in our community sample.

Patterns of Retirement for Men and Women

Of the retired men in our community sample, 30 percent had retired prior to age 60, 50 percent had retired in their sixties, and 20 percent had retired in their seventies or later. Only 1 percent had retired prior to age 50. Thirty-three percent of this group retired voluntarily, while 67 percent said they were forced to retire. Ninety percent of retired men 60-64 years old said they were forced to retire, while the percentage drops to 63 percent for the 65-74-year-olds and to 58 percent for those 75 and over.

The pattern for working women is somewhat different. First, they start retiring earlier than men. Although there are the same proportions of retired women and men in the youngest age category, only 29 percent of the retired men had been retired for 7 or more years, while 42 percent of the retired women had been retired 7 or more years. At the same time, women are less likely to see themselves as having been forced to retire (only 50 percent as compared to the 90 percent mentioned for men in this age category). For the other two age categories, the proportions of women seeing themselves as having been forced to retire are quite similar to those for the men (60 and 54 percent for the middle and oldest age groups, respectively). There are fewer retired women than retired men in the age category 65-74, and more in the oldest group. The percentages of retired working women in the three age groupings are 46, 68, and 92, respectively. For men in the same age categories, these percentages are 47, 74, and 84.

Two generalizations are suggested by these findings. First, it may be that younger men who retire are more likely to have been forced to do so than are younger women. This suggests, at least, that there may be health differences between the sexes. Evidence which tends to support this hypothesis includes the fact that health is mentioned as the reason for retirement by nearly three-quarters (73 percent) of all those retired in the youngest age category, and that almost twice as many men (26 percent) as women (14 percent) in this grouping were perceived by the social interviewers to have at least a mild health problem. Second, it would appear that men are more modal in their retirement pattern than are women. With the exception of those men who continue working into very old age, most men seem to retire quite close to age 65. Women, on the other hand, seem less subject to this modal retirement age. This is probably related to the different occupational roles for men and women in our society.

Characteristics of the Retired

Problems

Retired persons and housewives are much more likely to report current problems than are those who are still working. Over three-fifths of

the retired and the housewives (61 and 65 percent, respectively) report that they have a current problem. This compares to less than half (49 percent) of those who are still working. The retired are most likely to specify their problems as involving health or financial considerations. While 48 and 40 percent of the retired reported problems involving health and finances, respectively, the same proportions for the employed were 26 and 36 percent and for the housewives 36 and 23 percent.

Pleasures

Nearly everyone (in a subsample of 200) who was asked reported a chief current pleasure. However, the still employed were somewhat more likely than the retired or the housewives to report that this chief pleasure consisted of activities involving others. That is, 42 percent of the employed as compared to 37 percent of the retired and 37 percent of the housewives reported their pleasures consisted of activities involving others.

Attendance at Religious Services

The housewives were most likely to report attending religious services several times yearly (59 percent as compared to 47 and 50 percent for the retired and employed). However, both the retired and the housewives were more likely to have changed their attendance (either more or less) since age 50 than were the still employed. Most of the change for both groups was toward decreased attendance. These changes in religious activity were part of a total pattern of decreased social activity.

Social Activity

Three additional indicators of social activity level were used: social participation (visited by friends versus not visited by friends), organizational participation, and family contacts. The retired, the employed, and housewives all show a decrease in involvement compared to age 50. Among the retired, those reporting increased activity comprise from 3 to 9 percent, while 26 percent report less family contact, and 46 percent report less social participation. The net change for retired subjects is 37 percent less social participation, 28 percent less organizational participation, and 17 percent less family contact. The equivalent figures for the employed are 10, 37, and 28 percent, respectively. For the housewives, these same figures are 32, 25, and 33 percent.

The differences between the retired and the employed are particularly interesting. The employed show little change in social participation, due at least partially to the fact that they are still working. However, they show greater net declines than the retired in organi-

zational participation and family contacts. This suggests that to continue working into old age requires the relinquishment of other activities. On the other hand, the retired seem to balance the decline in social activity with an increase in such activities as reading or radio/television. The employed report little or no change in their reading or radio/television habits, but there is a net increase in reading among 17 percent of the retired and a net increase in radio/television among 24 percent. The housewives show a net decrease in reading of 7 percent and a net increase in radio/television of 8 percent. Housewives may be influenced in this latter change by retired husbands.

Retirement and Morale

Let us summarize what has been said so far. First we looked at those factors which influenced retirement, i.e., age, education, occupational status, health, and sex. Then we looked at some characteristics of the retired. These have begun to point to factors which are influenced by retirement: the nature of one's problems and pleasures, the changes in social involvement, and the changes in activities which fill the time gap left when work is no longer a central part of one's life. We have also argued that retirement is not a principal precipitant of mental illness in old age. At the same time, however, we feel that retirement has major implications for morale. Though a number of factors intervene in the relationship between morale and retirement, it would appear that some generalizations can be made.

Depression

The greatest impact of retirement on morale occurs soon after retirement. Depression scores peak and then drop. In the overall view, the proportion of subjects who are depressed increases with the length of retirement. However, the proportion depressed does not equal that at the initial impact of retirement until the subjects have been retired for over 10 years. The increase in depression among subjects who have been retired for periods of 10, 20, or more years is better explained by their age and such age-related factors as poor physical health.

Retirement generally has a greater impact on men than on women. There is a special instance where this is not true, but we will return to this later. The proportion of men retired within 5 years who show signs of depression is $1\frac{3}{4}$ times greater than for women. This difference gets smaller with the length of retirement, supporting the idea that age and age-related factors do take their toll.

Looked at another way, the results indicate that work is more valuable to men than to women. Among those of both sexes who are still working, $1\frac{3}{4}$ times more men than women report high satisfaction.

Attitudes Toward Aging

There is also a difference between the employed, the housewives, and the retired in attitudes toward aging. The retired are more likely than the other two categories to express negative attitudes, and the proportion of negative attitudes increases with the length of retirement. Sex differences also seem to influence attitudes toward aging. Men are more likely than either working women or housewives to hold negative attitudes toward aging. Women who worked and have retired fall between retired men and women who have never worked, in terms of the proportion holding negative attitudes toward aging, which lends support to the idea that these attitudes may be related to the extent of role loss which accompanies aging.

Alienation

On our measure of social alienation, the retired are more likely to be alienated than are either those still working or the housewives. Interestingly, the extent to which one feels alienated follows a pattern opposite to that of our measure of depression. Depression increases with the length of retirement after having first peaked immediately following retirement; alienation increases during the first few years of retirement and then follows a general pattern of decline. It appears as if the older person comes to accept the status society provides for him (the decline in alienation), but finds little satisfaction in this status (the increase in depression).

Retirement in Context

Retirement is but one possible role in the complex status of old age. Therefore, to understand the implications of retirement for aging it would seem profitable now to look at some other circumstances of aging.

Implications of Retirement for Psychiatric Illness

It was suggested earlier that retirement, under certain circumstances, may be related to mental illness in old age. By expanding our perspective and viewing retirement in the larger context of the aging situation, it is possible to describe two such circumstances.

Multiple Stress or Deprivation. First, the association between retirement and psychiatric impairment increases as the number of other deprivations increase. For example, 15 percent of our community subjects were rated as psychiatrically impaired, and this same rate applies to the retired as a group. When ill health is the reason for retirement, this rate climbs to 26 percent. Another example involves economic circumstances. For the retired subjects with sound economic circumstances, the rate of psychiatric impairment is 10 percent, while 26

percent of the retired subjects living under deprived economic conditions were rated as psychiatrically impaired. In a special study involving multiple stress or deprivation, the rate of psychiatric impairment tended to increase directly with the number of deprivations.(3)

The implications of the relationship between retirement and economic circumstances are quite apparent. As has already been shown, those persons with the poorest jobs and those least prepared for retirement are the first to enter it. In one sense it can be said that poor economic circumstances lead to earlier retirement, which in turn ensures continuance in a relatively deprived state. The fact that lower socioeconomic groups have higher rates of psychiatric impairment than higher socioeconomic groups is part of a larger, rather complicated picture. The part that retirement plays in this picture can be understood only when retirement is viewed in the larger context.

Role Conflict. The second illustration of the implications of retirement for psychiatric illness points to some rather unanticipated differences between men and women. It was among former working women that severe disturbances were associated with retirement. The fact that some retired women seem more susceptible to mental illness than do retired men suggests possible conflicts between sex roles and basic life goals. For example, among our hospitalized subjects we find the women in their seventies unique on a number of counts: first, they tend to be more severely impaired than either the younger women, the older women, or men of the same age; second, they are more likely to have been employed than are younger or older women; and third, despite the severity of their impairment, they are more likely to have maintained a higher level of social interaction just prior to admission to the screening wards than did younger or older women. These women in their seventies show indications of having been social overachievers. We speculate that a common sociohistorical factor has influenced this group of women. (They were at an impressionable age during the height of the feminist movement in the United States.) In any case, they seem to have reached for statuses beyond their capabilities and, as a result, they tend to view themselves as failures (indicated by feelings of low self-esteem). Retirement for these women removed any last hope of achievement.(4)

Other Context Effects

Activity Pattern. Both of the foregoing illustrations point to the fact that one can understand the implications of retirement only when it is viewed in the context of the individual's total situation. This idea is supported by a study involving the examination of activity patterns among our community subjects. When subjects with a variety of activities are compared to subjects with a restricted activity pattern, the relationship between work activity and morale is quite different for

the three age groups. For subjects with a restricted activity pattern, work continues to be functional for morale even among subjects of 75 years and over. On the other hand, if subjects with a variety of activities are still working after age 75, their chances of good morale are considerably less than if they had retired. In one sense this study points to mitigation of the impact of retirement on morale by a special set of circumstances—here, a variety of alternative activities.(5)

A Confidant. In another study, having an intimate relationship with another person was found to soften the impact of retirement. While retirement was found to be related to low morale independent of changes in social interaction, having an intimate relationship with another person lessened the impact of retirement.(6)

Summary

Basically, retirement in our society defines for the person being retired a situation within which his self image must change. This change is often perceived as negative. The fact that other characteristics which we as a society value negatively (poor education and low status occupation) are associated with early retirement and with one's chances for success in retirement helps to magnify this negative evaluation. It is emphasized also by the fact that retirement involves giving up a status with many roles for one with few if any roles.

Factors which act to further the restrictions upon the individual's sense of potential, such as poor health, self-imposed restrictions involving accomplishments or goals, or age itself, extend the depressive reactions of this stage of life. On the other hand, factors which give the individual a sense of worth or social importance lessen the impact of this status change and may even cause it to become a salutary one.

We have created a society in which retirement is achieved by significant numbers of individuals, but we have provided no rewards for this achievement except the leisure it may bring. For leisure to be enjoyed, one must be free to follow his desired pursuits. The irony in the achievement of retirement is that too many times it is accompanied by circumstances that restrict the individual. Not only do these restrictions impede his enjoyment of leisure, but they also carry the additional stigma we generally associate with old age.

Future Research

In conclusion we would like to suggest three areas for future research. First, a distinction should be made between morale and psychiatric impairment when measuring the impact of retirement. Low morale may well be an appropriate reaction to one's situation. Psychiatric

impairment, on the other hand, involves a psychotic depression, an inappropriate reaction involving a type of psychological deviancy. Among the elderly, the large proportion of persons with low morale may reflect the effects of situational factors which, if altered, would improve morale. At the same time, there are age-linked factors such as declining health which probably produce increasing numbers of persons requiring psychiatric attention.

Second, we feel that more needs to be done toward viewing retirement. Is there a quality which is necessary in the relationship which involve the examination of qualitative as well as quantitative differences in activity, along with how the older person values his retirement activity (e.g., in relation to consumption, productivity, creativity, stagnation, etc.).

Finally, we believe that more research needs to be done in terms of the consequences of social relationships on the meaning of retirement. Is there a quality which is necessary in the relationship which mitigates the impact of retirement? In addition to the number of social relationships, that is, the quantity of social interaction, it is important to know something about the quality of social relationships which can make retirement a far more rewarding experience than it seems to be for many of our older citizens.

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Discussion Following Donald L. Spence's Paper

Ethel Shanas, Ph. D.

Dr. Spence's is a provocative paper which deals with an important and neglected topic, the quality of life in old age. Because the study is based upon a community sample of persons, its results have fairly general applicability. Dr. Spence emphasized some points that have been made and raised other important issues. Also his paper suggests directions which research efforts should take.

Research Issues

Retirement as Status and as Process

Our understanding of the effect of retirement on the individual is handicapped unless we keep in mind the various uses of the word. The term "retirement" is used to describe an event, a stage of life, and a crisis period. Sociologists would say that the word "retirement" is used to describe both a status and a process. Persons who have given up occupations are said to be in retirement, a status, and persons who are leaving the labor force are also described as undergoing the retirement experience, a process. Being "retired," however, is not the same as "retiring." Retirement as status and retirement as process may have different effects on the individual. Analysis of the San Francisco data by age groups provides some insights into this difference.

Factors Which Influence Retirement; Factors Which Are Influenced by Retirement

The factors which influence retirement may be quite different from the factors which are influenced by retirement. As Dr. Spence points out, the factors which influence retirement, that is, those which deter-

mine when retirement takes place, are primarily age, sex, occupational status, and health.

The general level of employment and work opportunities, as well as the availability and adequacy of retirement income, also influence retirement. Cross cultural studies show that in Britain, Denmark, and the United States, countries with different pension ages, within 2 years after the age at which men are entitled to full pension benefits, one of every two men is retired.⁽¹⁾

The factors which are influenced by retirement are different in nature. They include the individual's daily schedule of activities, his social involvement, his problems and pleasures, and even what and when he eats, and where he lives.

Economic Factors

Income, which Dr. Spence did not discuss, has an important bearing on all of these factors. The Langley Porter investigators had to generalize with respect to income and social position. They used two measures: one relative to the socioeconomic position of the person through most of his life, and one relative to his status in old age. These are not necessarily the same, though there is some overlapping. With age, the role of socioeconomic status seems to decline in relative importance. There is a cutoff point, of course; the elderly are not satisfied if they are living in deprivation. However, they need only a relatively small command of the market place. Declining capacity for utilization of goods may be a significant factor in this change. A semiincapacitated person is not interested in what he cannot use.

Individual Differences

It is often assumed that the retirement situation is the same for all persons. This is an implicit assumption in many studies and its acceptance serves to bias the study and distort its findings. No one retires from nothing. Each person brings into later life, and hence retirement, a whole complex of social, psychological, and physical factors. These differ from one individual to another.

Situation Differences

Chances in life are not the same for all persons in our society. We are beginning to understand this more clearly for the young as we know more about how children learn.

Differential circumstances have as great an effect in later life as in early life. ⁽²⁾ The man who retires with a good education, considerable social involvement, and enough money to live on, is not retiring into the same situation that faces an uneducated blue-collar worker with a minimum income. In the same way, it makes a difference whether one retires from what Wilensky ⁽³⁾ has described as an "orderly" or a "disorderly" career. If one has had a lifetime job or a series of positions each

one of which lead into the next, retirement may appear as another stage in the work history. Contrast this view of retirement with the experience of the person who has had a variety of jobs, who has experienced stresses and strains in work and outside, and who finds himself at 45 or 50 jobless, "too old to work and too young to retire." (4)

Health

Physical health is of tremendous importance in old age. In the past, physical illness has been treated as if it could be understood apart from everything else in the lives of old people, and other things happening to the elderly have been treated as if they could be understood apart from health. The San Francisco study shows that retirement does not cause mental illness. Rather, the precipitating factor in mental illness is nearly always a sharp decline in physical health.

Both the decision to retire and the quality of life in retirement are affected by the physical health of the individual. This fact tends to be overlooked in many research programs. Sometimes retirement comes as a welcome respite from the pressures of daily travel to a job, from the need to keep a fixed schedule, etc. At the same time, physical health plays a major part in determining the quality of life in retirement. Good health may not make for happiness, but it is certainly easier to live when one is not plagued by chronic disease, disablement, pain, and discomfort.

Volitional Factors

How do we distinguish between voluntary and compulsory retirement? The latter usually turns out, on investigation, to be a matter of poor health. We need more accurate measures for defining voluntary and involuntary retirement.

Other Factors

Are the changes that vary according to the length of time the person has been retired solely age-related and health-related? Or are changes in attitudes, alienation, etc., due to changes in other aspects of the environment that have not been controlled in research?

Directions for Research Efforts

Better Conceptualization

The quality of research on retirement would be improved by better conceptualization on the part of investigators. (5) A start in this direction could be made by improving the definitions used in retirement research.

Studies of retired persons should distinguish between long-time and short-term retirees, their attitudes, living arrangements, and

income levels. It is obvious that short-term and long-time retirees may differ radically, but investigators tend to ignore this and to assume that they have controlled for differences in length of time in retirement when they control for the age of the retired persons.

There is need for a better definition of voluntary and compulsory retirement. Many studies show "poor health" as a cause of retirement. Should retirement for health reasons be considered as "voluntary" retirement? It would seem that grouping together as voluntary retirement, retirement for health reasons and retirement because one prefers leisure to work, can only confound analytical research. Such a grouping assumes that reactions to retirement will be similar among all those who have retired of their own volition irrespective of the motives for such a choice. The total situation which makes for retirement must be considered in explaining reactions to retirement.

New Approaches

Dr. Spence's paper has served to sensitize us to some of the faults of existing research and to point the way to new research. Some of this new research involves completely different approaches to problems which we may have considered "overstudied."

Quality of Activities and Relationships. More attention must be given to research which measures the quality of social relationships.⁽⁶⁾ It is not enough to report that persons do one thing or another when they retire. We have to know more about the meaning of any given activity for the individual in order to evaluate whether one life style is preferable to another.

Depression and Morale. Another matter that needs clarification is the difference between morale and depression. Spence contrasted the depressive reaction that often immediately follows retirement, which he called an "appropriate" reaction and which the person gets over with the passage of time, with what he called psychotic depression, which becomes worse in the very late years. By "appropriate" Spence meant that it is probably quite normal for people to have a depressive reaction to the changed circumstances of old age upon entering retirement. Our society does not have the same rewards for old people that it does for younger ones. The abnormal depressive response in the group of women who perceived retirement as a total loss might well be a psychotic depression.

It was suggested that a good measure for differentiation might be to find out if the old person's relatives could get along with him. Spence reports that this seems to be one of the important factors in the institutionalization of the elderly. They will end up in the psychiatric ward sooner, with fewer manifestations of deviancy, if they are in a family than if they are elsewhere in the community.

The relation of depression to physical illness is critical. The depressed person usually has a number of specific physical symptoms. The physician often treats these as though they were "typical problems of old age," without regard to the depression.

Work Career. There is a need for studies of the work career, because one's response to retirement reflects his working life—job changes, level of income, level of involvement, degree of skill and training, etc. We know very little about income levels throughout the lifespan, the job crises, and the degrees of involvement with work which are associated with various occupational groups in our society. Without knowing how work impinges on people it is difficult to evaluate the effect of retirement.

Longitudinal Studies

Serious attention must be given to the organization and implementation of longitudinal studies. It is only through longitudinal studies that we will be able to answer such important questions as: What factors are associated with depression in old age? Is it usual for persons to have depressive reactions upon entering retirement? (7) What about morale in old age? (8) Is good morale before retirement related to good adjustment in retirement? What about differential mortality in later life? Is there any evidence that lack of work causes physical decline? What are the social and psychological factors associated with survival into old age?

Longitudinal studies of middle-aged and older persons have been bypassed for cross sectional studies. The latter studies are easier to design and less expensive to carry through to completion. Some investigators have attempted to compensate for cross sectional designs by studying old people in a number of different societies to see whether the same phenomena occur within the same social situation irrespective of country. Correlation, however, is not the same as explanation.

For example, an international study of reasons why people retire was conducted in Britain, Denmark, and the United States. (1) The same questions were asked of all respondents. The investigators have been puzzled about how to explain the differences in answers. Were they the result of different patterns of social structure? Differences in age, social class, health, etc.? Or did the differences result from sampling the population of survivors in each country? Different factors may have led to survivorship in each. Such questions cannot be answered by a cross sectional method.

Another reason for longitudinal studies is that much depends on what people are retiring from and to. Although longitudinal research is difficult and expensive, it appears necessary if we are to understand human development in the retirement years.

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Frequency and Nature of Health Problems of Retired Persons

Adrian M. Ostfeld, M.D.

Purpose of the Study

Our interest in the health of the aged began with a cohort study to try to discern the risk factors for stroke and for chronic brain syndrome in the age group 65 to 74.

The Subject Sample

Our cohort is a very special one and, although I think the title of this presentation is precise and correct, I want to make crystal clear that we are talking about people receiving old-age assistance. Our cohort is a probability sample of all persons receiving old-age assistance in Cook County, Illinois. This definitely limits the extent to which our data can be extrapolated to other groups.

Probably I should first say a little about the old-age assistance recipients. There are about 2.1 million such recipients in the United States, some of whom receive small additional funds from other sources. Most of these people live in urban areas, so whatever I say has some relevance to perhaps 10 percent of the people in the United States over 65, but it has very limited relevance to the remainder. I think that this relevance has to be clarified further.

Regrettably, I believe that what we found in the Negro portion of our cohort is also true, by and large, for aged Negroes living in urban areas. What I say about the white portion of the cohort can be useful

as we think about the health of people who are not on old-age assistance, but it can provide only certain guidelines. The prevalence of disease here is probably as high as it is anywhere. If the relationships between poverty and health that are true of other groups are also true here, our white cohort represents the sickest and most disabled portion of the aged white population.

Our cohort is a noninstitutionalized group. Therefore, we are not talking about people in nursing homes, in mental hospitals, or in tuberculosis sanatoriums.

Data Collection

I do not want to take a lot of time with details of the workup. The data are obtained for us in part by trained interviewers who go out into the community and spend about 45 minutes to an hour with the usual questionnaires. Data are also based on approximately a half day workup during which physicians and medical technologists "have at them"—I must say to their pleasure, by and large. All kinds of things are done with all sorts of gadgets. The inevitable blood samples are drawn, and many things are done to the blood samples.

Few object to the procedures. Of those who survived from the time their names were taken off the tapes long enough for us to carry out the examination, positive response rate is about 88 percent. Only two people out of 1,900 examined thus far have indicated that this is a disagreeable experience; several hundred have indicated spontaneously that it is fine, the best examination they ever had.¹

It may be inferred that, for persons in this age group, attention from interviewers, from technicians, and from physicians is overwhelmingly welcomed and pleasurably experienced. This point alone may be helpful in considering the process of retirement.

Results

Now that I have stated most of the qualifications and limitations, I will present a portion of our findings, in three general categories: first, responses to fairly straightforward questions with regard to health and utilization of health facilities; second, the incidence of certain illnesses common in this age group; and finally, some findings that are not apparent unless one draws blood—I mean that literally—to examine for the prevalence, not of disease itself, but of risk factors for disease.

¹ The data reported here are those collected before approximately Sept. 30, 1966.

Self-Report by Subjects

Days in Bed. The first table indicates responses to the question: "During the past 3 months, about how many days did you have to stay in bed for all or most of the day because of your health?"

By and large, these people did not spend much time in bed. There is a suggestion that the ladies are a bit more willing to spend a day or two in bed when they do not feel well, but this is not a marked trend.

TABLE 1.—Answers to the question: "During the past 3 months, about how many days did you have to stay in bed for all or most of the day because of your health"?
[Percentage distribution]

Categories	Male Caucasian	Male Negro	Female Caucasian	Female Negro
None.....	87.0	86.6	82.6	81.8
1 to 5 days.....	5.4	4.3	7.4	6.9
6 to 10 days.....	1.5	2.7	3.1	3.9
More than 10 days.....	6.1	6.4	6.9	7.4
Total.....	100.0	100.0	100.0	100.0
Subjects.....	331	372	392	407

It is of interest that the percentages of persons who spent more than 10 days in bed are almost identical for race-sex groups, indicating that relatively long stays in bed as a result of serious illnesses are about evenly distributed in this sample. The main point is that there is not a good deal of time spent "in the sack." This is not, of course, news to people who are familiar with aged persons' views of their own health.

Hospitalization, Stay in Nursing Home. In the second table, we examined the prevalence of a stay in a hospital, nursing home, or sanitarium in the recent past experience of these people. The overwhelming majority had spent no time in institutions within the past 3 months.

The "unknown" category at the bottom of the table includes responses of participants who were not sure whether the institutional stay was 3 months, 3½ months, or 2½ months ago. Usually there was such an experience, but its timing was imprecisely recalled.

These people do not utilize hospitals with the frequency that one might expect. Probably hospitalization is less available to members of this group than it is to others, and I think that is an important point to keep in mind.

Parenthetically, so far—and we follow the cohort day by day—medicare has had no impact on the frequency of hospitalization or the

TABLE 2.—Answers to the question: "During the past 3 months, were you an overnight patient in a hospital, nursing home, or sanitarium?"
[Percentage distribution]

Categories	Male Caucasian	Male Negro	Female Caucasian	Female Negro
No.....	92.7	91.4	93.9	94.8
Yes.....	6.4	7.5	5.6	4.7
Unknown.....	.9	1.1	.5	.5
Total.....	100.0	100.0	100.0	100.0
Subjects.....	331	372	392	407

kinds of hospitals utilized. It is as if medicare never happened. The reason for this is probably a built-in attitude on the part of the people involved. When the Chicago poor become seriously ill, they and their families immediately think of hospitalization in Cook County Hospital. Habit patterns are the most important determinants as far as I can tell. The same situation has been reported in the San Francisco and the Los Angeles areas. There has been no noticeable change in the pattern of choice of hospitals as a consequence of medicare. I think that the important part of medicare will be the effect it has on the nature of medical care and practice rather than its effect on the health of older people.

Going Out To Visit. Responses to the question: "During good weather, about how often do you go out to visit?" indicate somewhat less mobility than I anticipated. (See table 3.) Going visiting is not a prominent part of the lives of most of these people.

There is a slight tendency for the Negro portion of our cohort to get out to visit friends and relatives a bit more. It seems that in the

TABLE 3.—Answers to the question: "During good weather, about how often do you go out to visit friends or relatives?"
[Percentage distribution]

Categories	Male Caucasian	Male Negro	Female Caucasian	Female Negro
Every day.....	9.4	13.2	6.1	9.1
At least once per week.....	16.3	26.3	20.7	22.8
At least once per month.....	16.0	20.7	26.8	30.5
Less often than once per month...	58.0	39.0	46.4	37.3
Unknown.....	.3	.8	0	.3
Total.....	100.0	100.0	100.0	100.0
Subjects.....	331	372	392	407

Negro ghetto, with all its problems, there nevertheless is some kind of street corner society. One of the very few advantages of living in such an area is that your friends and relatives are likely to be nearby. They cannot live too far away, for a number of reasons.

It is apparent, from looking at what these people say about their health and their health practices that, by and large, they do not view themselves as terribly ill. They are not bedridden to a great extent, nor do they use hospitals very often.

Examination by Physicians

However, when we come to what physicians find in detailed histories, workups, electrocardiograms, etc., we see a different picture and a startling paradox. The prevalence of major illnesses in this population as seen by physicians is staggering.

Limitation of Activities. The next chart (see table 4) indicates the percentage of subjects with varying degrees of limitation of activities. These are physicians' assessments of the behavior of these people. By and large the old people go outside their homes. More than two-thirds of them are not limited in getting about. Approximately 90 percent, perhaps a bit more, need only occasional help. So they are a reasonably mobile group. Very few of them are confined or need the help of other people to get about.

TABLE 4.—Limitation of activities as determined by physicians
[Percentage distribution]

Categories	Male Caucasian	Male Negro	Female Caucasian	Female Negro
Confined to house all the time except in emergencies.....	2.7	2.7	1.8	1.2
Can go outside but needs help of another person.....	3.6	3.8	6.6	6.1
Can go outside alone but has trouble getting around freely.....	25.7	15.6	25.2	20.6
Not limited in any of these ways....	67.7	77.2	65.8	71.2
Unknown.....	.3	.7	.6	.9
Total.....	100.0	100.0	100.0	100.0
Subjects.....	331	372	392	407

Rating of Health Status. If we look at the percentage of subjects in health status categories as determined by physicians, we begin to see the paradox. (See table 5.)

The term "gravely ill" among the categories was defined precisely before we started. We defined it as the presence of an illness that looks

TABLE 5.—Health status as determined by physicians
[Percentage distribution]

Categories	Male Caucasian	Male Negro	Female Caucasian	Female Negro
Good.....	16.0	21.5	16.3	18.2
Fair.....	45.6	49.7	46.7	48.2
Poor.....	33.5	24.7	31.9	30.0
Gravely ill.....	3.9	2.2	4.6	2.2
Unknown.....	1.0	1.9	.5	1.4
Total.....	100.0	100.0	100.0	100.0
Subjects.....	331	372	392	407

as if it will have a short-term fatal outcome regardless of the presence or absence of treatment, or one in which the usual modes of treatment are unsuccessful. For example, there is the person who has a breast lump with large lumps under the arm, somebody who has an obvious cancer of the rectum that looks as if it has spread into the regional lymph nodes, or somebody who has a congestive heart failure that has not responded to the usual medications. The number of people who look as if they are not going to live for very long is not a large percentage of the population.

The term "poor health" implies an illness in which there is major disability or discomfort and in which the possibility of death is present. Obviously a disease can produce either disability or discomfort and not imply the possibility of death. This is what we have called "fair health." For clarification, I might contrast coronary heart disease as an example of poor health (because the implication of mortality is there) with degenerative arthritis (which might produce serious restriction of activities and pain, but does not carry the implication of immediate mortality).

The last category is "good health." We did not find anybody who did not have something readily discernible on examinations (varicose veins, osteoarthritis, emphysema, etc.). Good health means that there was no illness that produced more than a moderate degree of disability or discomfort and none that had immediate implication of mortality.

We begin to see that there is a very large amount of illness as determined by a physician's examination.

Contact With Medical Personnel. Table 6 indicates the percentage of subjects who had talked to a doctor or a nurse about their health within various specified periods. I suspect that a certain percentage of these people included discussions with a pharmacist. On the south

and west sides of Chicago, the man who works in the drugstore dispenses a great deal of medical advice. Unfortunately, as far as I can tell, only about one in five is a registered pharmacist.

Much health information comes from sources other than the professional. I do not believe that these people distinguish between the different sources of information. They do not differentiate between podiatrists and optometrists, between ophthalmologists and orthopedic surgeons. But the fact remains that they do talk to physicians and other professional people about their health. They want to do this. Really, they seem to be not so much interested in hearing anything from the doctor as simply in telling him what is going on. They want to tell the doctor how they feel and are not at all disturbed if he has no suggestions about how to make them feel better.

TABLE 6.—Answers to the question: "When was the last time you talked with a doctor or nurse about your health?"

[Percentage distribution]

Categories	Male Caucasian	Male Negro	Female Caucasian	Female Negro
During past 3 months.....	57.7	58.6	66.6	70.8
3 to 12 months ago.....	13.9	16.9	14.8	15.0
1 to 5 years ago.....	15.4	14.5	11.5	9.3
More than 5 years ago.....	4.2	5.6	3.3	2.4
Denies any contact.....	8.4	3.8	3.3	1.5
Unknown.....	.4	.6	.5	1.0
Total.....	100.0	100.0	100.0	100.0
Subjects.....	331	372	392	407

This is an anxiety-provoking experience for physicians, when they begin to deal with these people. The physician expects that patients come to him so that he can in some way intercede with his particular competence and perform an operation or give a preparation. These people just want somebody to listen. This alone is a considerable source of satisfaction to them.

Diseases and Defects. When we look at the percentage of subjects with various diseases or physical defects, the magnitude of the illness burden in this population really becomes apparent. (See table 7.)

Some of the sex and race differences in prevalence of disease are very interesting. I will refrain from commenting on more than a few of them. Chronic bronchitis, for instance, appears to be about a 2 to 1 predominantly male disease, and about 2 to 1 predominantly Caucasian. It is directly related to the history of cigarette consumption.

TABLE 7.—Diseases and physical defects
[Percentage distribution]¹

	Male Caucasian	Male Negro	Female Caucasian	Female Negro
Chronic bronchitis:				
Without.....	84.5	90.8	92.3	95.3
With.....	14.5	8.0	6.6	2.9
Total.....	99.0	99.8	98.9	98.2
Cataract:				
Without.....	60.4	65.0	63.7	57.9
Left eye only.....	3.9	4.8	3.8	4.1
Right eye only.....	8.7	4.8	6.1	5.1
Both eyes.....	26.5	24.7	26.2	32.6
Total.....	99.5	99.3	99.8	99.7
Hearing:				
Adequate.....	71.6	75.8	84.1	84.5
Diminished.....	28.3	23.6	15.0	14.7
Absent.....	0	.5	.7	.7
Total.....	99.9	99.9	99.8	99.9
Speech:				
Normal.....	90.3	88.7	94.8	94.5
Aphasic.....	2.1	1.6	.5	.4
Dysarthric.....	3.3	2.6	1.2	.9
Other.....	4.2	6.7	3.3	3.9
Total.....	99.9	99.6	99.8	99.7
Vision:				
Adequate.....	95.7	96.7	95.1	97.7
20/400.....	2.4	1.3	3.8	1.4
Tunnel vision.....	.9	1.0	.5	.7
Total.....	99.0	99.0	99.4	99.8
Angina pectoris:				
Absent.....	83.6	90.3	82.1	83.7
Definite.....	7.8	2.9	11.2	7.1
Possible.....	8.1	6.7	6.6	9.0
Total.....	99.5	99.9	99.9	99.8
Myocardial infarction:				
Absent.....	95.7	93.8	94.1	94.8
Definite.....	2.4	2.9	3.3	2.2
Possible.....	1.8	3.2	2.5	2.9
Total.....	99.9	99.9	99.9	99.9

See footnote at end of table.

TABLE 7.—Disease and physical defects—Continued
[Percentage distribution]¹

	Male Caucasian	Male Negro	Female Caucasian	Female Negro
Hypertensive heart disease:				
Absent.....	90.6	78.4	86.7	65.1
Present.....	9.3	21.5	13.0	34.8
Total.....	99.9	99.9	99.7	99.9
Congestive heart failure:				
Absent.....	95.1	95.1	93.6	95.0
Present.....	4.8	4.8	6.3	4.9
Total.....	99.9	99.9	99.9	99.9
Other heart disease:				
Absent.....	86.4	88.9	86.9	91.8
Present.....	13.5	11.0	13.0	8.1
Total.....	99.9	99.9	99.9	99.9
Peripheral atherosclerosis:				
Absent.....	79.7	90.3	84.1	89.1
Present.....	20.2	9.6	15.8	10.8
Total.....	99.9	99.9	99.9	99.9
Other peripheral vascular disease:				
Absent.....	82.1	97.0	70.4	88.9
Present.....	17.8	2.9	29.5	11.0
Total.....	99.9	99.9	99.9	99.9
Cerebrovascular attacks (CVA):				
Absent.....	87.3	86.5	89.2	86.9
Definite.....	6.0	8.6	5.8	8.1
Possible.....	6.6	4.8	4.8	4.9
Total.....	99.9	99.9	99.8	99.9
Parkinsonism:				
Absent.....	86.7	93.2	94.3	97.7
Present.....	13.2	6.7	5.3	2.2
Total.....	99.9	99.9	99.6	99.9
Neurological gait disturbance:				
Absent.....	73.7	81.7	87.5	90.6
Present.....	26.2	18.2	12.5	9.3
Total.....	99.9	99.9	100.0	99.9

See footnote at end of table.

TABLE 7.—Disease and physical defects—Continued
[Percentage distribution]¹

	Male Caucasian	Male Negro	Female Caucasian	Female Negro
Diabetes:				
Absent.....	93.3	94.8	88.5	86.7
Present, dietary control only....	2.7	1.0	1.7	4.4
Present, and medication.....	2.4	2.9	7.3	6.3
Present, insulin taken.....	1.5	.8	2.2	2.4
Total.....	99.9	99.5	99.7	99.8
Subjects.....	331	372	392	407

¹ Percents do not total 100 due to rounding errors or incomplete data.

With respect to hearing, the ladies do a little better than the men. (With the exception of diabetes, the ladies do better than the men in just about everything we can find, except for cancers of the breast and uterus, where the risk is somewhat different.) Most of these people hear adequately. Diminished hearing implies that in a small examining room with a physician about 6 feet away they have difficulty hearing a normal conversational tone. In planning retirement programs one may assume that, even among persons whose health is probably worse than that of most Americans, the hearing function will be retained by most, and that activities dependent upon verbal communication will be successful.

About nine-tenths of the people are able to speak in an intelligible manner. I think that the prevalence of speech problems would have been lower if the group had not had a fair proportion of people who were born in Europe and who never were able to speak English effectively. The nature of our sample, the white sample particularly, is affected by including men from European countries who did not send for their wives and families, but remained isolated from contemporary American society.

Our ophthalmological criterion for adequate vision is "better than 20/400 with or without glasses." This is about the cutting point for whether or not one can read a newspaper. Again, 95 percent of these people retain their vision, so that programs for retirement involving the use of visual communication would be able to reach the overwhelming majority of them. More than a third of these people have cataracts. Some are small and do not interfere with vision.

Let us look now at life-threatening diseases. There is a large amount of angina pectoris, a manifestation of coronary heart disease. By usual standards, a fair proportion of these people, 4 to 5 percent, probably have had myocardial infarcts and survived.

There is a good deal of hypertensive heart disease and, as found in other studies, this disease appears to be much more prevalent in the Negroes as compared to the whites. I take the view that the very large amount of high blood pressure in the Negro is one of the two or three most important public health problems in the United States.

About 5 percent of these people are in congestive heart failure, which means that they could not walk across this room without getting out of breath, their ankles are swollen, etc. There is a fair amount of other heart disease. It is present in about 10 percent of the group, and usually is rheumatic heart disease. Syphilitic heart disease has all but disappeared. People with congenital heart disease do not survive to this age group.

There is a good deal of peripheral vascular disease. It is interesting to see that the Caucasian part of the cohort has almost twice as much peripheral atherosclerosis as the Negro part, possibly because of differences in diet, possibly because of differences in occupation. I can only speculate. The other peripheral vascular disease is largely varicose veins. You can see again the marked differences between Negroes and whites. Nearly one-third of our white ladies have varicose veins.

The next item, cerebrovascular attacks, refers to strokes. We did not differentiate among the different kinds of strokes. Most of these represent thrombotic episodes, with some hemorrhagic strokes; we did not find any embolic episodes. A fair proportion of these people have had these disorders, but incidence is not particularly different among age-sex groups. Strokes may be more prevalent among Negroes in general. I happen to know that, in this case, the rates are not significantly different. We did not do statistical analyses on these data because the collection is not complete and because I do not believe in doing statistical analyses unless you are prepared to accept them at that point.

There is a good deal of parkinsonism; its prevalence looks like that of chronic bronchitis. It occurs more frequently (2 to 1) among female whites than among female Negroes, and more frequently (2 to 1) among male whites than among male Negroes.

As to neurological gait disturbance, I can report here that accidents are a very common cause of death in this age group, and that gait disturbances are a very common cause of not getting out of the way of that automobile. These people run high risks of accidents, partly because of these nervous system problems.

With respect to diabetes, we found a striking thing. If we used the usual criteria for diabetes in this cohort, over half of the people have diabetes mellitus. Although only about 7, 8, or 9 percent of the people were taking treatment for diabetes, as you can see in one of the later columns, the majority of the people by the usual criteria, would be defined as having this disorder.

The problem posed by diabetes must be thought through for many common diseases. We must have new definitions for health and disease, and new targets, new levels of health that we are willing to accept in this age group, or else we shall be faced with horrendous health, medical, and manpower problems.

High Blood Pressure. Let us take a brief look at one of the risk factors for disease. There is a good deal of high blood pressure in this cohort. (See table 8.) Only about 15 percent of the people who have high blood pressure are having it treated adequately. Usually this is because of patient failure. Patients do not realize that the pills have to be taken every day whether they feel good or not.

TABLE 8.—Arterial pressures

Variable	Male Caucasian	Male Negro	Female Caucasian	Female Negro
Systolic pressure sitting, left arm (mm):				
Minimum.....	90	100	95	100
Maximum.....	265	235	230	260
Mean.....	149	156	153	157
Diastolic pressure sitting, left arm (mm):				
Minimum.....	50	50	40	30
Maximum.....	150	110	125	115
Mean.....	80	77	82	80

Blood Chemistry (See table 9)

The blood urea nitrogen is elevated in an appreciable proportion of the sample. What I said about diabetes is illustrated more clearly by the levels of glucose. The mean glucose level for each of the four groups is about 170, which is above the usual criterion for diabetes. This is on the 1-hour, oral, 50-gram glucose tolerance test. According to the usual criterion, anything exceeding 168 milligrams means diabetes. Therefore, the mean glucose level in our group is at the level accepted as indicating diabetes for younger age groups.

The protein-bound iodine determinations indicate that we have people with failing thyroids as shown by the lower values, and also a fair number of people who have thyroid hyperactivity.

One would have thought that all of the people with high cholesterol would have died of coronary disease long ago, but they had not. Many of them survived to this age group. We can say that the incidence of new cerebrovascular attacks in this cohort will be about 2.5 percent per year.

The incidence of new chronic brain syndrome, as defined by decrement in recent memory on certain simple psychological tests and by inability to be responsible for one's day-in and day-out activities, will be less than 1 percent per year.

TABLE 9.—Blood chemistries ³

Variable	Male Caucasian	Male Negro	Female Caucasian	Female Negro
B.U.N. (μ g%):				
Minimum.....	4.0	6.8	6.8	5.5
Maximum.....	50.4	34.8	63.2	47.3
Mean.....	17.4	16.4	16.3	16.9
Glucose (mg%):				
Minimum.....	75	84	46	73
Maximum.....	462	507	504	627
Mean.....	167	190	164	167
P.B.I. (μ g%):				
Minimum.....	2.1	1.7	3.1	2.9
Maximum.....	17.0	18.7	22.3	37.0
Mean.....	6.1	6.6	6.1	6.6
Cholesterol (mg%):				
Minimum.....	115	110	134	138
Maximum.....	343	386	336	428
Mean.....	206	236	216	247

³ Statistics for the distribution of blood glucose are based only on subjects not known beforehand to have diabetes mellitus.

Implications

I have indicated that there is a marked paradox in that the people see themselves as not being in particularly bad shape, but the physicians are horrified by the prevalence of illness in this group. This brings out the need for better definitions of what constitutes health in this age group. How much illness and how much discomfort are we willing to settle for and accept as a part of normal aging, and how much does the public want the health professions to do something about the situation?

If the health standards for younger persons are applied to this age group, all of the health professions are going to be completely swamped in meeting these standards. I am not saying that they should not be met. Perhaps this is the goal that society is going to set for the health of this age group. If it expects for this group the kind of health care delivery that is now in theory available to younger age groups, we are faced with a big problem. For instance, about 76 percent of this cohort ought to be taking medication every day for one

reason or another—for diabetes, high blood pressure, or parkinsonism.

In fact, most of them do not take their medicine. Adherence to medical regimens is a serious problem, possibly much more common in this particular cohort than it would be in other segments of society.

The question of artificial organs was raised. When one reviews these data, it appears that artificial organs are not going to be particularly helpful for this age group. I must confess that I probably have a bias against artificial organs because I do not know whether surgery is effective for most disorders. For example, I know of only one controlled double blind study on surgery for strokes. This study, which was made at Wayne State Hospital, indicates that this surgery is of questionable value. (1) It is very seldom possible to do research in which people are randomly allocated to have an operation or not to have one. Someone wholly unbiased about the outcome should make the assessment. The question of replacing the central nervous system is obviously a fatuous one, since there are 10^{10} neurons in the brain, and we would need a transistorized computer 30 city blocks in size for one person.

Another major issue is whether we are interested in programs aimed as positive health maintenance in this age group. Do we really want to try to get these people to stop smoking cigarettes? We know that the day one stops cigarette smoking his risk for sudden death from heart disease goes down. There is not a cumulative effect of cigarette smoking on death from coronary disease. Can we alter diet, smoking, and other major habits in this age group? I do not know. This is a very important topic. Do we want to treat hypercholesthemia with physical activity and change in diet? Do we want to manage the diabetes existing in this age group with the expectation that we can make the first decade after retirement a somewhat more comfortable period? If we decide that we want to, the price will be high.

These issues of medical economics—whether we want to engage in programs of positive health maintenance or of prevention in the older age groups—are crucial. On the basis of what we now know, I think it probable that these programs would pay off in reduced morbidity and mortality. But there are the counter issues of cost and medical manpower.

I think that what we have found in Cook County is as bad as any situation in the United States. I repeat that our findings should be tempered when they are extrapolated to the other groups, particularly Caucasian groups.

REFERENCE

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Discussion Following Dr. Ostfeld's Paper

Carl Eisdorfer, Ph. D., M.D.

Dr. Ostfeld and his associates have made an important contribution to our understanding of the frequency and nature of health problems of retired persons. Though his sample is limited to persons receiving old-age assistance in a major urban center, the findings substantially increase our knowledge of the health patterns of the aged. These aged persons, in the lowest socioeconomic stratum of the community, are probably the least healthy individuals outside of institutional settings. However, in my opinion, Dr. Ostfeld is conservative in considering these findings to be applicable to only 10 percent of the aging population. I contend that some general principles emerge which may be extrapolated to a much larger group.

Health Needs and Demands

The characteristics of this sample allow us to examine our stereotypes concerning the subjective health requirements of the aged. The perception that older persons constantly make demands upon the societal health complex may be erroneous. This survey demonstrates quite impressively that precisely the opposite is the case. In point of fact, these aged have not demanded enough in relation to their medical needs. This sample of older persons does not use medical facilities commensurately with the extent of illness seen on physical examination. Dr. Ostfeld's description of this phenomenon as a "startling paradox" is not only eloquent but apt.

The comparatively small number of subjects who elected to spend any appreciable amount of time in bed seems to reflect the fact that

few of these aged persons perceived themselves as sick. This impression is reinforced by the number of subjects who talked to doctors and nurses about their health. There is surprisingly limited contact with the medical profession on the part of these subjects of whom less than 20 percent are seen by physicians as manifesting good health. While some of the subjects might not remember talking to a doctor in the last 3 months, this tendency may be balanced by the number who confused the welfare worker with a nurse.

The extent to which contact with the physician is compromised by cultural factors should not be overlooked. While there is a strong tradition of medical usage in the middle socioeconomic classes, and while some subcultural groups show heightened usage, the sample under study probably has a longstanding pattern of limited use of medical resources. However, acceptance of feeling poorly as a normal part of aging is the significant issue at stake here, and doubtless plays a central role in limited involvement with medical services.

Dr. Ostfeld's subjects are not unusual in this regard. Dr. Schnaper commented that the Spanish-American War veterans studied by the Veterans Administration consider themselves as getting along very well despite their average age of 86. They were not given physical examinations, but data on their medical usage were available. Utilization of the free medical care available to them was a function of the distance to the nearest medical facility. Thus the rural pensioner had a much lower rate of medical care seeking than his urban peer. This would appear to emphasize the importance of the current concern of the medical profession and the Federal Government with the delivery of health services to the population.

The Communication Value of Health Complaints

Personal health and health-related themes are important factors in the communications of older persons. Those who have spent time as observers in retirement homes and communities are impressed by the frank elaboration by older residents of intimate personal physical data. Digestion, bowel movements, and general state of health are discussed openly. These conversational themes may be upsetting and depressing to younger people who visit such places for the first time. Such material serves an important purpose for the old person however. It represents a very personal communication. In earlier years one's work may be such a personal topic. With aging and retirement, little may remain which can be communicated in order to serve this function. Unfortunately, like a radio broadcast, such communication is often one way. The patient may not be interested in advice, but in the communication value of the symptom.

Many persons will complain about their health if given the opportunity, but they will not spend money or time to define themselves as ill. For this group we should use the term "high bodily concern." Hypochondriasis might better be reserved for those persons who actively pursue treatment. Whether the high bodily concern group is physically ill is another problem. Dr. Ostfeld's data suggest that we have yet another group, those with low bodily concern or high bodily acceptance.

Identification of Health Status

Health categorization is a most important problem and raises the central issue of what is health or illness. There are various approaches to rating health. Dr. Shanas has employed a self-rating. Dr. Ostfeld used the patient's report of the number of times he discussed his health with a professional, and the physician's evaluation of his health. The latter may include laboratory findings which are not correlated perfectly with the overall rating. Clearly we are not always dealing with the same variable. I will give you a brief history because it is one that impressed itself on me.

The young man in question was about 16½ years of age. He was rather tall and was a candidate for his high school basketball team. During a routine physical examination albumin was discovered in his urine. After the expenditure of a considerable amount of money, consultation from several eminent specialists in renal diseases, and the passage of 8 months, nothing was found except albumin in his urine. I will not elaborate on the emotional tension in the household. This teenager was not allowed to play basketball that year, spent 6 weeks in bed, lost valuable school time, and clearly has an altered style of life. Here is an excellent example of the dichotomy. The physician said, "My physical examination shows you are within normal limits but you must be sick because the laboratory reports show an abnormality." The boy said, "I feel fine, I am not sick." His parents said, "If the doctors say you are sick, you are sick. Lie down."

This point is relevant to the aged. Who is to determine when they are sick? Do they say, "I am sick" or do we say, "You are sick?" Whose criteria should be used to make the judgment? If they say, "I need medical help," but we find no treatable disease, is there need for help? On the other hand, should we ignore those persons who make no request for help, or do we need a program of comprehensive medical education and care? Should we, then, provide alternative communication pathways for the high bodily concern of some old persons and try to improve the health consciousness of others?

Effects of Illness

Another important issue which emerges from Dr. Ostfeld's report relates to the complex phenomenon of disengagement. Many of us have been critical of the theory as an overriding concept in aging. Here is interesting evidence, however, to suggest that withdrawal from interpersonal interaction may be related to the physical illness which frequently accompanies the aging process. Older people may become involved in a pattern of social withdrawal which stems from limitations in physical capacity, despite the failure of the individual to identify himself as sick.

I have no doubt that many of the subjects described in this study manifest clinical or subclinical symptoms. Many of these people do not feel quite well and some are unable to engage in even moderate physical activity. Consequently they are less likely to go out. However they have accepted such feelings and limitations as "part of being old." I call your attention to the relationship Dr. Ostfeld found between the physician's assessment of health and the number of times the subject visited out of the home.

This issue of health and activity also reflects on the importance of differentiating between age and disease. How many individuals retire because they are doing poor work because of poor health? How many who do not retire are ill and are only waiting for their pensions to become available? They struggle on, while their work has a deleterious effect on their health.

The situation with chronic bronchitis will serve as one example. The incidence of chronic bronchitis reported by Dr. Ostfeld is quite large. Many of the people suffering from it must be short of breath after only a short walk especially if, as seems likely, emphysema is an associated problem. Such persons would be happy to give up a blue-collar job. Even a white-collar job could involve health as an important limiting factor. Yet this is not a simple function of age. Improved health care for this aged group might bring about entirely different patterns of health, and therefore different behavior.

Medical Inpatient Care

The number of people who had been in a hospital, a nursing home, or a sanitarium seems minimal considering their health and the fact that they were welfare recipients. Public patients typically are admitted to hospitals by residents or interns. These are young doctors, and many of them are interested in exotica. An old person with an "ordinary" disease is less likely to be admitted if other facilities can be made available. This is especially true if hospital bed space is at a premium. Several participants at this meeting were critical of the relationship

between medical education and patient care, and it was pointed out that no medical school in the country attempts to involve medical students in a nursing home setting. The tradition is for medical students to attend to the deprived and poor while the staff focuses upon the affluent. Thus the medical student is waiting for the time when he can function like a private staff person.

On the other side, one has to understand this issue from the point of view of the hospitals. Today hospitals are designed for complex diagnostic and treatment procedures. There are millions of dollars worth of equipment in the larger institutions. Serious shortages of professional staff often are chronic problems. The use of such facilities for chronically ill persons without serious diagnostic, or particularly complex therapeutic problems is thus often of low priority in terms of the perceived mission of the hospital.

More concretely, the admission of an aged person is less a function of finances than it is a function of the attitudes of the admitting physician toward disease, age, and cure. Another complex issue is that elderly people are evaluated in different terms than are the young. There is a shifting baseline of expectation for health and illness *vis a vis* the aged. A familiar comment from a physician to an aged person is, "What do you expect? You are 65 or 70. I am not as young as I used to be either." The attitude of some physicians to the aging patient appears to be essentially: "What are you complaining about? You're alive aren't you?" Such a posture implies that expensive time and equipment are better invested in cures for the young.

Much of the disease in old age is chronic disease not readily amenable to cure. This may be frustrating to the physician because it places him in a role conflict. He desires to cure people; however he cannot cure people of aging, diabetes, or chronic heart illness. This makes geriatrics a less desirable type of practice for many. In addition the physician must accept involvement in long-term relationships with chronic-disease patients, and many physicians are not prepared to tolerate such relationships.

Ordinarily, the physician anticipates that the patient wants relief of symptoms and a cure. However, cures are not always forthcoming for elderly patients and there is little reinforcement for taking the medicine. For the chronically ill person, medicine does not cure disease. Rather, it prevents acute flareups and death. For example, a diabetic may not feel much differently if he misses a dose or two of insulin. However, if he fails to take this medication for long enough, he may find himself unable to function, requiring intensive medical care, or worse.

To complicate this issue, the older person does not learn as well as does the younger individual, and he may be more interested in using his health as a form of communication than in following medical

advice. Thus he may be a particularly difficult patient. In one sense he is not interested in getting well. He is, perhaps, more interested in the interpersonal value of his health. He does not perceive immediate effects from following the doctor's advice, and he sees no point in it.

Besides, what does this young whippersnapper know? It is easier to ignore the physician if he is reduced in status, and the aged patient's perception of the doctor as a nice young man is familiar. Thus the doctor-patient relationship so sacred to the practice of the health community is in a state of high jeopardy with the increasing age of the patient in relation to that of his physician. Since most aged patients have outlived their personal physicians if they had them, the problems may be complex indeed.

Some Specific Disorders

Dr. Ostfeld's data cover a wide array of areas. Several issues are deserving of special note. These include audition, vision, vascular disease, and sensory motor or gait disturbances.

Audition

Approximately one-fourth of the male subjects in Dr. Ostfeld's study manifested hearing loss as measured grossly in the clinical test. Audiometric examinations including speech tests probably would reveal much more widespread hearing loss, and this diminished hearing may be a sign of major importance. Research at Peter Bent Brigham Hospital indicates that when an array of medical data on aged patients is intercorrelated and analyzed, the central factor which emerges is hearing loss. (1) That is to say, hearing level may be an excellent indicator of the overall state of health. Our work at Duke leads me to speculate that hearing loss may lead to withdrawal, and that decremental personality changes occur with diminished hearing. (2)

Vision

Impaired vision is an even more common problem. Thirty percent of Dr. Ostfeld's subjects had cataracts. I wonder if they would consider their vision adequate, even if the ophthalmologist did. Differences between subjective and objective measures of health are crucial for studying adaptation. Changes in the organism may be accepted and yet lead to withdrawal and excessively diminished function.

Vascular Disease

The incidence of vascular disease seems, at first, to be quite high in this sample of people who are functioning in the community. These findings reflect the extent to which vascular pathology is a primary contributor to death and a precursor of the dread diseases of the aged

such as strokes. We need to look more closely at the diet and genetics of hypertensive heart disease subjects, at the health of their offspring, and at life style patterns.

I am a bit insecure in discussing hypertensive cardiovascular disease. Obviously it is a bad thing to have, but cerebral perfusion is a good thing to have, especially where there are signs of brain damage. Mild hypertension is related to incidence of normal electroencephalogram higher than the at large base rate for an aged psychiatric sample, (3) and Obrist has suggested that hypotension is related to EEG changes. (4) In treatment of the aged, care must be taken to avoid sudden reduction of blood pressure, even reduction to normotensive levels lest we compromise cerebral circulation.

Sensory Motor Changes

Gait disturbances, parkinsonism, and some of the communication barriers make the older person insecure about his stability and accident prone. Lawton has described what he calls convoy behavior: An older person waits at a corner until he can cross the street with a younger person. (5) He may also exhibit convoy behavior while driving. When he stops for a red light he may wait for other drivers to proceed. This can lead to disasters in States like Florida where it is legal to make a right turn from the far right lane after stopping at a red light. An aged driver in the middle or left lane may note that the driver to his right is proceeding, and the older person may accelerate across the intersection, against the traffic signal. This dependency upon the young can be disastrous in other ways too, unless the younger person has accepted the responsibility for caring for the aged, yet the older person may be unwilling to expose his deficits.

Health and Retirement

The relationship between health and retirement is an intimate one. Over the course of the next decade we will potentiate life. As a consequence, the group in the middle years, which will have to support the groups at both age extremes, will be a smaller proportion of our population. In the near future there may be surgical banks which provide artificial organs and a kind of "youthfulness in age" may exist. If we know enough about genetics to know that our kidneys will give out at 60, perhaps we can replace the organ at 45 and the weak link in the organ chain may be strengthened. What, then, will be the impact of retirement upon an "active" and "youthful" individual? Such problems are begging answers and we have barely raised the issue. The course of medical advances may thrust upon us a new class of social and psychological problems for which we are totally unprepared.

The focus upon medical aspects of retirement has underscored the importance of self-perception of illness and of the need to look beyond self-perception. Data presented here have demonstrated the importance of disease, even when it is not identified as such, for modifying interpersonal relationships. Of equal significance, these data have helped us to appreciate how little we know about medical care patterns, about the delivery and acceptance of medical care, and about the relevance of subacute physical illness to adaptation.

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Differential Patterns of Retirement by Social Class and Personal Characteristics

Abram J. Jaffe, Ph. D.

The study I shall discuss is sponsored by the Social Security Administration of the Department of Health, Education, and Welfare. Since we have been working on it but a few months, I can tell you more about what we expect to do than what we have done.

One item basic to this particular piece of research is that it involves the use of data already collected, which are mostly census data. We are not going out to collect any additional data. I know the popular thing to do now is to conduct a survey and collect new data. However, with the considerable quantity of information already available in present records and statistical tabulations, of which the Census Bureau may have the largest supply, we oriented this study around the use of such data in order to minimize costs.

Another aspect of this study is that it involves men only. I have absolutely nothing against women. But studying them also would have doubled the cost of the analysis, and the money was not available.

There is one other point. I now have another study entitled "The Demography of the Middle Years," which is supported by the Russell Sage Foundation. The essential fact about these two projects, as I see them, is that they are really one project. What happens to the individual as a youth helps determine what will happen to him in the middle years, and that in turn will help determine what happens to him in later ages. There is, I believe, a real cause and effect system of relationships throughout life.

The Occupational Mobility Model

As for the study itself, some time ago I worked out what we originally called the mobility model, based on occupational mobility. It is a

rather all-inclusive model. One of the items that it kicks off is retirement, from which you can get retirement rates. The specific rate I am using out of this model is the number of men aged 50 to 64 in 1950 who were in the labor force at that time, but who by 1960 were out of the labor force and still alive, expressed as a proportion of the number of men in that age range in 1950.

In the United States, for example, out of every 100 men aged 50 to 64 in 1950—aged 60 to 74 in 1960—31 had left the labor force and were still alive. That is an overall retirement rate for the decade. Given this model, we can get retirement rates for whatever characteristics we feed into the computer. We can then get retirement rates by such characteristics as color (white or nonwhite), occupation, industry, education, and any other characteristics for which we can get the necessary data tables from the census. These are all based on the 1950 and 1960 censuses.

Output Expected

Retirement Differentials for Population Subgroups

Some characteristics may be considered less important than others. It all depends on how you want to figure importance. The simple fact is that we have very little information about differentials in retirement by these various characteristics. There are only some bits and pieces of data.

For example, you cannot get retirement rates for different industries from the Old Age Survivor Insurance (OASI) records. Perhaps one could, in theory. If you knew the industry in which the person last worked, and how many men were engaged in that industry and in each appropriate age group, retirement rates could be calculated for that industry. Even though it might be possible in theory to get a lot of this purely descriptive material, in actuality it is not available. Hence, if nothing else, we hope to have information on these differentials in retirement by education, industry, occupation, color, region of the country, marital status, etc.

Effects of Increasing Proportion of White-Collar Workers

Back of this descriptive part, we have certain hypotheses, of which one is as follows. From what little we know now, it looks as though white-collar workers have lower retirement rates than have manual workers. Furthermore, the economy is becoming more and more white-collar all the time. If you want to look ahead to 1985, or whenever, there will be a larger proportion of white-collar workers in the working force. Maybe that means that more people will be less eager to retire in 1985 than now. If there is anything inherent in the fact that white-collar workers are less eager to retire and thereby managing to remain in employment longer, I can see a possible conflict a decade or 2 hence.

There will be more and more people in the labor force who are less and less anxious to retire, on the one hand.

On the other hand, at least through 1980, the number of new entries into the labor force is going to continue increasing very rapidly because of the higher birth rate following World War II. At the same time that hordes of youngsters are pouring into the labor force, there may be a growing reluctance on the part of those in the labor force to retire. What do you do? If you hold a straight vote, there are more youngsters in the 21 to 31 age group. If you reduce the voting age to 18, there will be still more young than old people and we will lose out. It is a real problem. It cannot be settled by democratic vote.

Effects of Industrial Growth Rates

Another hypothesis stems from the suggestion that retirement from an industry at any given time is a reflection of the growth of that industry in past periods. Under purely hypothetical conditions, if a particular industry has been growing rapidly in employment, say for 20 or 30 years, conceivably at the end of that time it may have a lower retirement rate than has an industry that has had stationary employment over the whole period. If that does turn out to be the case, we get involved in the question of mobility, that is, shifting jobs from one industry to another. Then we are in a hornet's nest of problems.

Effects of Earlier Mobility

It may very well be that the mobility pattern of youth shifting from job to job affects, or has some relation to, their ultimate retirement patterns. As a first step before we do any analysis, we must get these rates.

Some Problems in Data Analysis

Most of the data are available in the census volumes. Some of the tabulations needed are available only from the one-in-a-thousand tape, and then there is the problem of getting output from the tape. Even when the tabulations are available in the census volumes, there is not one that could be used as published there. This is no reflection on the census. Rather, Congress is one of the problems. For example, they made Hawaii and Alaska States between the 1950 and 1960 census. Hence you have to do something with the 1950 census to get data comparable with those for 1960. Even that is less costly than paying the Census Bureau to collect new data for you.

With a clerk, you can make the required estimates for the 1950 census. The 1960 census had many "no answers" in regard to occupation and industry. We have adjusted for them. I do not know whether Dr. Sheldon will agree with the way we did this. He has not yet seen our adjustments. Anyhow, we have the 1960 census more or less cleared up. Data problems really require the major part of the project time.

Once we get the retirement rates for the various characteristics, the analysis itself should go fairly rapidly. The terminal date on the project is about July 1, 1968. You can see that the greatest part of the work is still ahead.

Some Preliminary Results

Change in Retirement Rate

At the moment I have some examples of data. For the period 1930 to 1940, the retirement rate was 24. Twenty-four of every 100 men aged 50 to 64 in 1930 had retired and survived to 1940. Between 1940 and 1950, the rate went down to 22. Between 1950 and 1960, it jumped to 31.

Those three rates correspond to events. During the 1930's, very few people were covered by OASI, so in a sense there was no incentive to retire. On the other hand, unemployment was high, so that often people did not have much choice. By the 1940's many more people were covered by OASI and presumably could retire. On the other hand, during much of that period unemployment was relatively low; men could get jobs, so why retire? During the 1950's, practically everybody who was covered by OASI could retire. Certainly during the latter part of the 1950's unemployment was high enough to "encourage" men to retire.

Occupational Differences in Retirement Rate Changes

Over the 30-year span, the biggest change occurred with farmers. In the 1930's, the retirement rate for farmers was only 16. During the 1940's, it was 35.

Among the nonagricultural occupations it looks as though the white-collar workers in general had somewhat lower retirement rates than had manual workers, with the exception of service workers, who had a very low retirement rate. Service seems to be a heterogeneous occupational category containing some very good jobs, but many more rather poor ones. It may be that the low earnings in the service industry contribute to keeping in older men such as shoeshine men, washroom attendants, doormen, and those who perform other jobs of that type.

Another observation extending over the entire 30-year period is that within the nonagricultural occupations the correlation between retirement rates is very high. If you know what the differences in retirement among the occupations were in the 1930's, you can predict the differences in retirement in the 1950's. In the 1930's, as in the 1950's, the white-collar workers had the lowest and the manual workers the highest retirement rates, except that service workers had a very low retirement rate.

Retirement Rates by Color and Occupation

For the decade 1950 to 1960 we have retirement rates by color and occupation. Again there is very little difference between the two color groups. If white and nonwhite men had exactly the same occupational distribution, the retirement rate would be exactly 30 percent for each group. As it is, because the nonwhites tend to be concentrated more among the manual jobs where the retirement rates are higher, the actual retirement rate for nonagricultural workers is 32 for the nonwhites versus 30 for the whites. It is entirely a function of more of the nonwhites being in manual occupations.

Census Region Differences

We also have retirement rates by occupation for the four census regions. The Northeast has the highest retirement rate of any part of the country. The South and the Far West have the lowest. The crude retirement rates for nonagricultural workers are 32 in the Northeast, 32 in the North Central, 28 in the South, and 27 in the Far West.

If you standardize for occupational composition, the Northeast and the North Central have rates of 32, and the South and West have rates of 28. I think the significance of that lies in the differential rates of growth in the regions. In standardizing we have given all four regions the same occupational composition to begin with.

During the 1950's there was very little growth in employment in the Northeast, moderate growth in the North Central States, and much higher growth in the South and particularly in the Far West. Employment went up close to 40 percent in the Far West between 1950 and 1960, and was hardly 6 percent in the northern corner of the country. I suppose that could mean simply that there are more employment opportunities in the Far West. Given more overall employment opportunity, perhaps older men also had more employment opportunities, and so did not have to retire. In the Northeast, however, where there was very little increase in employment, maybe there were fewer employment opportunities for older men and more pressure on them to retire.

Unemployment and Retirement Rates

Another observation has to do with unemployment and retirement. If you correlate the retirement rates of the occupations with the reported unemployment by occupation in the census, you find a substantial relationship for the 1930's, 1940's, and 1950's. The correlation is not perfect, but it is enough to suggest that the fact of high unemployment means fewer job opportunities for older people. We know that employers do not want to hire them under the best of circumstances if they can avoid it. If the employer has a choice between a

25-year-old and a 60-year-old applicant for a job, he will take the 25-year-old, and that is it. So with high unemployment you have a high retirement rate.

Conclusion

What I have tried to do here is to illustrate the general approach we are taking. I do not know how much of the considerable variation in the retirement rates we will be able to explain eventually. In the Northeast, for example, if you take nonagricultural labor, the retirement rate was 40. At the other extreme, if you look at sales workers in the West, the retirement rate was only 17. So there is considerable variation. The question is, will we be able to explain enough of this variation to make some kind of contribution?

Obviously the census data upon which we are relying so heavily can tell only part of the story. To the extent that data from other sources can be tied in, we should have a fuller explanation. Furthermore, in the future the changing age composition of the American working force, increasing longevity, the absolute increase in numbers of older persons, future changes in OASI and private pensions, and increases in wage levels, will introduce new factors into the basic question: Why retire?

Discussion Following Abram J. Jaffe's Paper

Henry D. Sheldon, Ph. D.

Utilization of Existing Data

Dr. Jaffe's study represents an outstanding example of the use of general-purpose census data to provide a useful analysis of an important problem. Although he is clearly aware of, and articulate concerning, the limitations of these data for his purposes, he has by a series of ingenious methodological devices surmounted the major difficulties and achieved his defined objectives. The wide range of data available in census publications provides a potential basis for a variety of intensive analytical studies such as Dr. Jaffe's.

Not all of the conferees were willing to concede the outstanding virtue of general-purpose statistics such as those mass-produced by the Census Bureau, the Bureau of Labor Statistics, and the Social Security Administration. They pointed out that such statistics rarely answer in unequivocal terms the really important questions. For example, Dr. Jaffe's cohort analysis does not permit him to determine the number of persons who died on the job or the number of persons who retired and died during the decade. Those who had reservations concerning the usefulness of mass statistics would substitute carefully planned sample surveys in which the contents of the questionnaire and the tabulation could be controlled.

Dr. Jaffe defended his use of census statistics on the grounds that his analysis provided answers to the questions he had posed, that the costs of collecting data relative to those for analyzing existing data are extremely high, and that in these parlous times there are too many surveys and the response threshold of the general public to questionnaires is rising. In the end there appeared to be a reasonably general

agreement that while no amount of analysis of mass statistics will answer all the questions relating to retirement, imaginative and intelligent analyses of these data provide a valuable and fairly stable, large-scale frame of reference for detailed studies focused on more precise problems.

Definition of Retirement

The medically oriented members of the group, imbued with the conceptional precision of their discipline, expressed some dismay concerning the assumption that older men who were not in the labor force at the time of the survey were retired. "How," they asked, "did the interviewer know that the respondent was not lying?" and "How did the analyst know that those not in the labor force during the survey week did not reenter the labor force?"

Those participants who had had experience with surveys on the employment situation of older persons admitted that it was quite possible that not all responses were completely accurate. However, they pointed out that the same battery of questions used in a variety of contexts yields essentially the same results, so that they are comparable. Likewise, they admitted that some persons who have formally retired do reenter the labor force, but they indicated that the proportion of such persons is extremely small. With the exception of the latter years of World War II, when an appreciable number of older men reentered the labor force, the labor force participation rate of men 65 years old and over has declined steadily since 1890.

This discussion points to the need for a more imaginative approach to the definition of retirement. In the case of a participant in a pension system, something more than a shift from a contributing to a beneficiary status is clearly involved. It is perhaps not so much a matter of definition as it is a matter of performing detailed longitudinal studies of what happens to the individual during an extended period after his initial break with the labor force.

Identification of Causal Factors

A constantly recurring theme at the conference was the uncertainty inherent in ascribing cause when change or difference is observed in variables under investigation. It is possible, for example, that differences in retirement rate by occupation are determined or influenced by mortality rates which are differential by occupations. Similarly, education rather than occupational classification may be the crucial factor in the differential retirement rates for blue- and white-collar workers. Because of changing occupational roles and the growth of service oc-

occupations, the old categories of white- and blue-collar worker may be inappropriate to certain analyses.

The lower retirement rate for white-collar workers often is interpreted as indicating greater satisfaction from the performance of work among members of that group. However, for a certain segment of the white-collar group, the motivation to continue working may be quite different. A certain portion of the white-collar workers are economically disadvantaged in retirement, compared to those blue-collar workers who have supplementary retirement benefits from a union. They may continue to work simply because they need the money, not because they like to work.

Factors underlying regional differences in retirement rates need further exploration. Prevailing education and job levels probably are involved. The proportion of self-employed men may be relevant. Overall growth rate of the economy probably is relevant, because the older man is more likely to be one of the marginal workers whose employment status is soonest threatened by a tight labor situation. Decline of old industries and rise of new, and change in production procedures, interact with the job immobility of the older worker. If the employment situation requires making a change or retiring, the older worker is more likely to retire.

Effects of Social Change

An increase in the ratio of white- to blue-collar workers is predicted. What is going to happen as more of the working force becomes white-collar? If they follow trends discussed here, a decreasing number of workers will want to retire. This suggests increased conflict between generations.

At present an investigator must take into account regional difference which may affect his results, such as the differential retirement rates which were discussed. However, the homogenization of American culture may soon obliterate these regional differences. In the latest census data, life expectancy shows little variation among the States and is almost constant throughout the Nation. In preceding decades, there was considerable difference in death rate from one State to another.

Social and Psychological Factors in Adjustment in a Retirement Village

Maurice B. Hamovitch, Ph. D.

Age Integration Versus Age Segregation

The problem of housing for retired people and for the elderly who may or may not be retired is the source of considerable controversy. For the most part, integrating the aged into the rest of the community has been emphasized, despite the fact that some research indicates that this is not necessarily the ideal way of setting up housing. (1) In recent years, however, a number of private housing developments as well as a few public housing projects have been built exclusively for older people. This is what we might call age-segregated housing.

A conference in California in 1951 produced a statement that "any planning for aged housing should be based on the corollary that older people should also remain an integral part of the community, preferably in the same community in which they spent their earlier years." (2)

A number of sociological and economic considerations may be advanced to challenge the validity of this conclusion. The first issue has to do with ecological assumptions. Do families typically spend their preretirement years in one community? Certainly a great many American families have mobility histories that are broadly related to stages of the family life cycle and to changing economic circumstances. The home and community that serve the family well during the period of maximum size may not serve as well after children have been launched and during the later period when the physical strength of husband and wife is waning.

The second issue concerns the degree to which the person was an integral part of the total community in the past. Urban life for some young families is rather strictly segregated both by age and by special interests. The child is sent to nursery school or kindergarten at a very early age. Later he is socialized by contacts with very specific age groups in character-building agencies, in religious and educational institutions, and in community recreational groups. By the time he is an adolescent, his one important reference group consists of other teenagers. When he is married, he associates with other young married people, and in a few years he turns to Cub Scouts, Parent-Teacher Associations, and other family-interest groups.

Some of those who take a position for age-integrated housing infer that living in such an ecological setting somehow insures more contact with family and other young persons. Family research specialists, on the other hand, feel that the contemporary family is essentially nuclear in structure, introverted in focus, and so mobile that constant contact with primary relatives is difficult, regardless of where the parent lives. Furthermore, up to the present, the importance of contact by the elderly with children rests more on sentimental than on empirical grounds. Much research has been undertaken, such as Rosow's (5) which tends to refute its importance.

A related point is often made in support of housing and neighborhood continuity. If it is true that the family today is widely dispersed, then it is all the more imperative that friends and neighbors be maintained as sources of social and emotional support. Physicians, ministers, and others add to the security and comfort of individuals as they grow older. When a person moves into a new community, he sacrifices all of these. However, the supporting persons are also mobile, and some of them die. The isolation of immobile older persons due to these losses has not been determined.

Those who support age-segregated housing of the elderly contend that there are significant changes in individual needs and capacities for this group, and that these can be served better in a community geared especially to older persons. They maintain that, as many individuals grow older, there is a gradual loss of energy level, with a consequent wish for less responsibility and fewer chores. Hence a planned community which assumes these tasks may be functional for the adjustment of this group. The proponents of these communities claim that it is possible to increase social and community participation by maximizing accessibility. There is also economic saving in large, single-purpose communities that may bring the aging groups more value than is possible in urban age-integrated housing.

Disengagement Versus Activity

Another major controversy exists between the disengagement and the activity theorists. While these debates go on, housing developers

seem to have parlayed aspects of both theories to sell the public on the concept of "active retirement," capitalizing on the disengagement side of the controversy by appealing to older people to remove themselves from society into age-segregated housing, but at the same time countering this by an appeal to a life full of activities. Publicity brochures refer to the country club atmosphere, golf, swimming, arts and crafts, bridge, planned trips, etc. But they also refer to leisure, peace, quiet, and security.

The public has generally been receptive to these appeals. So far, retirement communities have been quite successful in selling homes. Many of the people who moved into these communities have been extremely well satisfied; others have been disappointed. The research project on which this paper is based was undertaken to ascertain the characteristics of those electing to live in one such community, their motivations, and the degree of their satisfactions and dissatisfactions 1 year after moving into the community.

This Study

The retirement community is located in the Los Angeles metropolitan area. It is priced to attract those in the middle and upper income groups, those within perhaps the top 10 percent of the aged population. Economically, it is quite a contrast group to that of Carp.(4)

Questions for Investigation

Who are the people who are attracted to this activity-oriented, age-segregated community? What are they like? Why do they wish to live under these conditions? After moving, what are their reactions? Do they change in their attitudes toward life and toward themselves? Are any factors associated with satisfaction or with dissatisfaction? We felt that if we could answer some of these questions we might add to our knowledge of this one segment of gerontology and provide some practical help to those who are planning programs and working with the aged.

Limitations

In this study, as in all studies, a number of limitations must be acknowledged at the outset. We are discussing a unique type of retirement community and a selected sample of individuals. Eventually we hope to include other types of retirement communities and to compare those who elect to live in these different types of age-segregated communities with those choosing not to segregate themselves in any way. I will point out later some of the unique features of this sample that make it very difficult to draw any generalizations with regard to aged or retired people as a whole.

Research Design and Materials

Just a word about the design. We are now in the second phase of this study. In the summer of 1964, a sample of individuals who were about to move into this retirement community was selected and interviewed. The second phase consisted of interviewing the same people, approximately 1 year after they moved, to note any changes in attitudes and to ascertain their satisfactions and dissatisfactions. The original sample had consisted of 411 individuals who were asked a long list of questions, in interviews averaging about 1½ hours per case. The second sample consists at this point of 366 in-movers (of the original 411) who were interviewed approximately 1 year after having moved. We kept most of the original questions for comparability, and added some.

We asked a number of the usual kinds of questions in order to ascertain socioeconomic status (occupation, education, etc.) as well as a number of questions with regard to retirement status and attitudes toward retirement.

Another section of the interview relates to reactions to the retirement village. We asked in-movers again what were their motives for moving away from their former residences, as well as to this particular retirement village. We asked about their initial reactions, their expectations, their reservations, and their subsequent reactions.

The third section deals with health perceptions. The respondents were asked to rate their health status and to comment on their use of physicians and of the medical plan. They were asked to compare themselves in relation to others in regard to age. We included a section dealing with personal feelings and attitudes, utilizing some of the items from the Kutner morale scale. Another series of questions probes the respondents' attitudes toward time, that is, how often they think of the future and the past, and the ways in which they think of them. There are questions on attitudes toward religion, relatives, friends, and neighbors. Two final sections deal with marital adjustment and with organizational and leisure time activities.

Subjects

Age. The age distribution of the population which moved into this retirement village does not correspond with that expected in the usual retirement community. About 39 percent of the respondents were less than 65 years of age, 46 percent were between the ages of 65 and 75, and approximately 15 percent were over the age of 75. The mean age was 68.9 years. The interviewed sample might be described generally as consisting of persons over middle age who do not have children or adolescents in their households. In other words, all the family developmental cycles after child launching are represented.

Socioeconomic Level. There is an imbalance in the sample toward the higher socioeconomic levels, as indicated by the high percentage of persons (26 percent who were rated) who listed their occupations as professional. This can be contrasted to the 12 percent of the California population in this category. Another 20 percent of in-movers were in the managerial class. So 55 percent of this sample were in professional and managerial occupations.

Education. Educational achievement is a similar selective factor in the sample. The median education was 12 years, or graduation from high school, as contrasted to 9 years for persons in the United States who were 45 years of age or over. This is a much more highly educated group than the normal population.

Marital Status. Another unique feature of this particular group, in contrast to those in many retirement villages, was the very high percentage of married couples. Eighty percent of the population were married and living with their spouses, 14 percent were widowed, and 6 percent were either separated, had never married, or were divorced. Within the small unmarried segment of the in-moving population, the women outnumbered the men 5 to 1, which is more characteristic of retirement villages.

Retirement Status. Another distinctive characteristic of this retirement community population is that it did not, at the time of moving, consist only of retired people. Twenty-six percent of the in-moving population was not yet retired, though more than one-third of this nonretired group were over the age of 65. However, subsequent to the move, 81 percent were reported as retired. Therefore, while many were not retired at the time of moving, they were looking forward to the move with the idea of retiring.

Attitudes Toward Work and Retirement. One of the current concerns that many of us have about older people is that they really want to work, that they are forced to retire, and that once retired they miss being at work. Generally, we believe that this is especially true for people in the managerial and professional classes. The findings for the group of individuals who chose to live in this particular leisure town do not substantiate this claim. Almost three-fourths reported that they never wanted to work again, three-fifths stated that they did not miss doing a good job, have trouble keeping occupied, or miss people at work. Most reported that there had been no change in their attitudes on these matters since moving to the retirement village. For those who did report change, it was in the direction of accentuating the advantages of leisure over work. Interestingly, women had more problems in this regard than men did.

Examining the data in a little more depth, we found the following in relation to some specific questions which were parts of different

scales. We asked the question: "Do you agree strongly, agree somewhat, disagree slightly, or disagree greatly with the statement: 'No one should retire if he can still work'?" Seventy-one percent of the men strongly disagreed, in contrast to 28 percent who thought that perhaps this was true. The women were not so certain. Only 55 percent of the women disagreed strongly, in contrast to 42 percent who felt that this might be true. This difference suggests that women more frequently than men think that men should continue to work.

The second question along these lines referred to the statement: "The culture places more value on play than work." Both men and women agreed in the ratio of 2 to 1, which suggests that there is a trend away from the Puritan work ethic.

A third item was: "People get more satisfaction from their families than from work." Again the figures were in the ratio of 2 to 1 agreeing with this, which suggests the attitude that work is a necessity, whereas the family is a source of joy.

The fourth question was not on the same subject. It asked their reasons for quitting work. They mentioned personal and health reasons more commonly than compulsory retirement. Most people reported that virtually no time was necessary to become accustomed to not working. Most of them were accustomed to not working within a few days, and nearly all of them were, within a week or two.

We must be careful in making generalizations from these data, because this is a highly selected group. It is a group of upper middle class older people who have substantial incomes. It is comprised of people who have chosen voluntarily to move into this kind of retirement community, so we can not generalize even to the total upper middle income group.

Reasons for Moving. We asked these people why they had moved away from their previous residences. Most had moved away because of dissatisfaction with the community and with the housing. The community was deteriorating, they thought, or the housing was not adequate—usually in the sense that the houses were too big and the people wanted to move to apartments or to homes that were more compact and that did not require as much care. Relatively few moved because of family considerations. It is interesting also that they commented, in relation to moving, that they wanted to do a lot of traveling, and that they did not feel secure about leaving big homes in the middle of the city.

The decision to move to this particular leisure village was made because of specific advantages offered, either financial or physical, rather than for social or family reasons. They liked the setup or they liked the package deal.

Before the move they had anticipated problems in social interaction. Three-fifths of the men and a few more of the women were concerned

that there might be too much organized social activity and that they would not have enough privacy. There was some realistic basis for this anticipation. Generally, these people reflected some of the same concerns that many of us have when we think about these retirement villages.

Reactions to the Retirement Village

Satisfactions and Dissatisfactions. After the move, three-fourths were very pleased initially with their new community and only 10 percent were disappointed. The physical setting and the social relationships were pointed out as features most liked immediately. Ninety-five percent listed these first among features they liked, despite the fact that social relationships were of most concern prior to moving. The lack of shopping facilities and services was the most disappointing feature. At the end of a year of residence, the activities (golf, bridge, etc.), the people, the way of life, and the general atmosphere were the items noted as most pleasant.

Those who expressed disappointment, mentioned chiefly the people, the management, and the location. Women were more likely to name these as major sources of dissatisfaction. The physical aspects of the community such as workmanship of some of the construction, the lack of shrubbery or the lack of facilities, were other features mentioned by those who expressed disappointment.

These are the kinds of complaints that one generally expects from people moving into a new community where services are not yet fully developed. They are probably just as characteristic of young families moving into new housing developments. Men were generally more positive than women. Forty-five percent of the men did not miss anything from their previous residences, whereas only 22 percent of the women missed nothing.

The things that the men missed most were physical characteristics and the quality of the housing. If they were moving from substantial houses to apartment dwellings one can understand this. Women missed the services such as shopping and restaurant facilities, and, surprisingly in a way, the social life. But perhaps this should not be surprising, since the women were giving up established social lives, whereas the men probably were establishing them for the first time. Also, the activities which were provided were probably more male-oriented, which may explain why the men cited them more frequently than the women did.

Families were not missed very much. Only 4 percent of the men and 4 percent of the women mentioned that they missed their families. This may be related to the fact that they had not moved far away from their families. Actually they were not any farther away than they had been before. The overwhelming majority, 85 percent of the men and

77 percent of the women, said they had no regrets about the move. More women than men expressed regrets.

Most of the residents found their expectations fulfilled; that is, their positive expectations were met or exceeded. Men, who had higher expectations, were more often disappointed. Thirteen percent of the men were disappointed, whereas only 5 percent of the women were disappointed in their expectations.

On the other hand most in-movers found that their reservations had not eventuated. Women, who started out with more reservations, found life just as bad as they had expected in 36 percent of the cases and worse in 9 percent. For men the figures were 32 percent and 4 percent.

Activities and Relationships With Other People. Members of this group seemed to have close family ties but did not believe that parents should interfere with the opportunities of children even if this meant that they had to move away. Over three-fourths of the residents had relatives, mostly children, living in the area. Generally they maintained contact about once a week or more frequently, which was about the same as previously. Of those who noted a change, it was in the direction of more rather than less contact. This information with regard to family relationships and attitudes was much the same as reported in the literature generally.

It is difficult to judge the gregariousness of a group simply by the number of friendships, but on the whole this group seemed to have substantial contact with others. Over three-fourths reported at least five close friends and about the same number stated that they had at least 20 other acquaintances. They felt that they found it easier to make friends since the move than formerly, which is contrary to some of the literature that indicates that the middle-class people have difficulty making friends as they get older.(3) This group said they found it easier.

As a check on their impressions, we compared the number reporting many friends in 1964 and in 1965. In 1964 only 73 reported that they had many friends. In 1965, 246 reported that they had many friends. There was not a similar change, however, in organizational participation. They were neither more nor less active in organizational activities than they had previously been. Two-thirds belonged to some form of organization. Very few thought that they would have any problem finding things to do if they had more free time; most would spend it in solitary types of activity.

Men, in the proportion of 3 to 1, reported having less free time since the move, in contrast with more time than desirable. Women showed the same trend, but not so markedly. Almost three-fifths stated that they expected their greatest participation in activities was still ahead of them, but half reported that their participation in normal organizational activity was behind rather than ahead of them.

We attempted to obtain some information about the degree to which the group was activity oriented. Our figures are, I must confess, very confusing. If we look at the figures a certain way, it appears that the people are very activity oriented. From other viewpoints, they look more passivity oriented. The difference depends upon the definition of activity. In terms of the number of things they are doing, this is an extremely activity-oriented group, but the kinds of activities in which they engage tend to be sedentary.

We also asked about religious participation and attendance at religious services. We found a bimodal distribution on attendance. About one-third of the men did not attend, whereas about two-fifths of the women attended at least once a week. There was no difference in church attendance since the move, and apparently not very much difference compared to when they were 45 years of age. There was less participation in the social aspects of religious activities since the move. Roughly two-thirds were not participating in these at all.

Life Satisfaction and Self-Image. We attempted to obtain some picture of in-movers' life satisfaction and self-image. Generally they were satisfied with their lives and were discovering that aging was not as bad as they had anticipated. Some of the positives mentioned were financial security (which distinguishes them from other parts of the population), health, freedom from a number of responsibilities, and opportunities to maintain some level of activity. That is, they kept saying in a number of different ways, "I am very happy because I am healthy, I am financially secure, and I am able to move around."

As a group, they tended to be extroverted and activity-oriented by the definition of the number of things they were doing. They found reassurance in the companionship of contemporaries similar to themselves in socioeconomic status and with similar problems of adjustment to new roles. The homogeneity that was characteristic of this population was a source of satisfaction rather than dissatisfaction. They commented that, "It's a good quality of people who live here."

In general there seemed to be a move in the direction of disengagement from many responsibilities of former years, but at the same time the maintenance of a level of activity that kept them occupied. They expressed a need for, and a pride in, being kept busy, but not in working.

I was quite concerned, as I started to look at the data as they first came out of the computer, that it just sounded too good. Everything was great and everything was better than it had been. But as we looked at it in a little more detail, there were also some realistic things. They acknowledged that 65 or 75 was not the most desirable age. One of the questions was, "What do you like most about the age that you are now?" A number of people, 25 percent, said "Nothing." This was

particularly true of the 65- to 75-year-old group, which suggests that the recently retired have problems in adjusting to the shift in status.

Those who saw positives in their current age commented on peace of mind, freedom from responsibility, leisure, and security. All are passive, disengaged types of reason, yet these people were engaged in many activities.

The age they would select, if they were to pick out the ideal age, would be between 30 and 44 years. For men this represented the peak of careers, the height of physical fitness, and great involvement in meaningful activities. For women it represented youth, health and vigor, as well as wisdom and maturity. Some men selected under 30 as the ideal age because they would like to start their lives over, whereas the women who selected that age did so because it represented the period of their lives when they had "much fun" and fewer responsibilities.

The overwhelming negative aspect of their current age was health status and concern about their health in the future. This was mentioned over and over again. They were grateful for being healthy now, but concerned whether they would continue to be so.

We asked them how they rated themselves in relation to others in the community. Most thought of themselves as middle aged, acting a little younger than their friends, but mostly the same as their friends. They said that the other residents in the community thought of themselves as middle aged but younger in spirit.

Most of them admitted to being depressed or "blue" at least sometimes. Proportionately more women than men admitted to this. We use the term "admitted" advisedly, because we suspect it was a question of their acknowledging it. At any rate, the women admitted to feeling this way more often than the men did.

Most of them said they felt "blue" less frequently since the move, although this change was not as characteristic for the women as for the men. Both men and women indicated greater happiness since the move and less loneliness. More women than men were lonely and, again, we think this is reflective of the nature of the community. The advertisements stress swimming, horseback riding, and so on.

Summary

To summarize briefly, this is an upper middle income group which tends to react to a new community in about the way one would expect any group moving into a new community to react, regardless of age—a little awed by the surroundings, with a glow of new ownership, but critical of physical facilities. After one year these people seemed to be quite happy, with a few exceptions. We are hoping to analyze the exceptions in more detail.

The question that remains, despite this preliminary, rather positive picture of life in a retirement village for those who chose to live there, is what is going to happen 10 years from now as they become more acclimated and begin to look around a little more dispassionately at their surroundings; when deaths begin to mount; when illness slows down mobility and people are more confined. Right now they are healthy, but what is going to happen when they are not so healthy and not so mobile? What will be their reactions then? We hope to pursue this. We hope, as well, to see what happens to those who leave and why they leave. Very few had left within the period of a year. We suspect that the low turnover is due to the financial difficulties. But eventually more will leave, and we expect to followup and find out what happens to them.

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Discussion Following Maurice B. Hamovitch's Paper

Irving Rosow, Ph. D.

This Study

Dr. Hamovitch's report raised a number of interesting points which warrant clarification.

Factors Which Limit Generalizations

Several of these involve problems of the representativeness of the persons and situation studied. We do not know whether his findings are general or particular, whether they characterize such special subgroups as those studied or apply to the life conditions of broad segments of the older population.

Time Interval. Perhaps the first point to be raised is that this was a new, young retirement community. For the past 30 years, housing research in the United States and Europe has conclusively shown that all new communities, regardless of the age or social composition of their residents, go through various stages in the development of local institutions, patterns, and norms. In a word, there is almost a natural history of the emergence of a local subculture.

The first stage of this process (what might be termed the "sea of mud" phase) represents a transitional period of adjustment from former neighborhoods to the new community. Typically, in this period, people sink new roots after tearing up old ones. This process is characterized by high levels of activity, social interaction, mutual aid, etc. To some extent, the affiliative patterns that are so common function as supportive ties in a new and unfamiliar environment. This phase lasts until the community becomes stabilized—until life begins to take

on a more familiar, normal routine. At that point, the early transitional social patterns commonly break up and change, and the more enduring features of the neighborhood start to emerge.

The transitional period usually lasts at least 12 to 18 months. The basic problem this poses is whether the early patterns survive and become stable features of the social landscape or whether they are replaced by different practices. In other words, will the social life of the first 6 months be typical of the community when it is 2 or 5 or 10 years old? This question certainly cannot be answered on the basis of followup or after interviews conducted within a year of the establishment of any community. Hence, it is unclear whether or not the social patterns Dr. Hamovitch reports will be observed later on.

Health. A second aspect of typicality concerns the health of the residents. Retirement housing usually recruits mainly from the younger segment of the older population, and this was true for this community. The average age of the residents is 63. Forty percent of them are under 65 years, another 45 percent are under 75, and only 15 percent are 75 or older. Thus, this is a population still young enough to be in reasonably good health. It has significant underrepresentation of those over age 75, among whom health problems become most severe. Hence, health in this group has not yet exerted an important influence on social patterns or presented a major problem of care in illness. In another 10 years, medical difficulties will inexorably emerge in a group whose average age will then be pushing 75. At that time, health care will become a major problem, and social activities may also decline.

Self Selection. The third problem of representativeness stems from the self selection of the population. The migrants among older people are usually different from the nonmigrants, and this group is no exception. This sample of retirees was critically unrepresentative in income. They were not even middle income people, but were in the upper bracket. Essentially they were drawn from the top 10 percent of the age group. Most of the aged must confront retirement in vastly different economic circumstances. The experiences of upper income persons are useless in the analysis of the problems of the majority.

In comparison to the total older population, these residents are younger, in better health, have more education and higher income. Such people commonly are quite active and sociable and have considerable initiative and many interests on which to draw in structuring their lives. They are likely to be interested in their neighbors and in neighboring. Both the social homogeneity of the residents and their social interests foster an integrated social existence in which people are active group members and probably reasonably happy and satisfied.

Setting. Such living conditions are not general, either. What happens in normal settings, particularly in changing urban neighborhoods of

heterogeneous social composition? What happens to the social life of the majority of older people, who live among young and middle-aged neighbors? What happens in retirement communities to those who are not socially oriented toward and involved with their neighbors, but rather to outside reference groups of various kinds, whether family, friends, or institutional groups?

My own research has implications for such questions. (1) Briefly, active neighboring is strongly contingent upon social homogeneity, particularly of age, sex, and social class. Such neighboring is not simply confined to sociability, but also harbors latent resources of mutual aid for the most dependent people—those without family, living alone, and most seriously ill. This mutual aid is dependent upon there being a very high concentration of old people, as is found in retirement communities. Low concentrations of the aged are conducive to their social isolation, especially that of the more dependent older residents, and to their lack of care during periods of illness. Supportive social resources where they live are enjoyed by only a tiny fraction of the age group.

Preference. Finally, not all older people are favorably disposed toward their neighbors and toward social activity with them. In my own research, very substantial proportions of our older sample sedulously avoided involvement with neighbors, either because they were socially withdrawn and apathetic (but not unhappy) or because they were oriented solely to family and friends outside the neighborhood. The latter group constituted over one-third of our middle-class respondents, who were persons with social characteristics similar to those from which retirement communities recruit members. This indicates that numerous people with adequate financial means would not be interested in the local involvements promised by retirement neighborhoods. And further, many more of our subjects, especially those in the middle class, vehemently objected to any prospect of living in artificially age-segregated settings under any circumstances.

Implications of These Biases. These comments are not criticisms of Dr. Hamovitch's research; they simply underscore the general issue of the atypicality of residents of retirement communities. Sharp differences seem to distinguish such migrants from people of the same social class whom they leave behind. To be sure, there may be demographic similarities of age, health, occupation, education, and income. But there are also contrasts in attitudes and reference groups that are important for social participation, and there are qualitative differences of life style and interests within social classes. In other words, we can distinguish second-order differences of social types within classes

which indicate that retirement communities are simply not everyone's cup of tea. This is reasonably clear.

But the major problem that it presents is definition of the terms in which older migrants differ from the other aged of the same social class in attitudes, values, interests, sociability, orientations, and so on. What are the social factors that differentiate qualitative life styles? For example, are migrants typically isolates? Are they people with extensive, but superficial, social ties? Are they those with or without deep special roots? Are they those whose significant others (family and friends) have withered away because of death or moving? Or are they retirement life-style leaders who represent ideal models for large segments of the older population? Are they innovators of leisure life patterns whom other aged will flock to emulate as increasing retirement incomes make this possible?

Briefly, are these migrants the ideal social leaders who personify future changes and the crystallization of new retirement roles? Or are they exponents of a deviant life style that stands outside the mainstream of conventional social patterns, both now and in the future? The extent to which we can generalize from present residents of retirement communities to other aged depends largely on these migrants' social and attitudinal characteristics, the degree to which they typify the attributes and aspirations of the rest of the older population, and the degree to which the aged in general can successfully surmount the discontinuity of retirement with the norms and group supports that such communities afford.

Finally, it is vital to document carefully the changes that retirement communities work on people's lives and the impact of these changes. How do the migrants' new life patterns compare with the old? In what ways are they similar or different from their previous lives? Further, how do the new patterns resemble or differ from those of nonmigrants of the same social class who are equally embedded in groups and social activity?

To provide additional information regarding impact, who are the people who try a retirement community but do not fit in, and who dislike it? How many migrants have viable alternatives open to them if they do not like the life, and for how many are there no effective alternatives once they have made the commitment and the move?

To what extent do people accurately anticipate the quality of life in a retirement community and correctly predict their own reactions to it? How much do they idealize and romanticize the picture in advance, and later have to contend with unexpected and unpleasant realities? To what degree is their expressed satisfaction a response to an appealing pattern of living; to what extent is it an adaptation to an unexpected situation; and how much of it is a justification of an irreversible decision along the lines postulated by dissonance theory?

Summary

It is clear that retirement communities pose some rich problems for study. But research must take into account the transitional and often temporary features of all new settlements, the inevitability of retirees' emergent problems of declining health and illness, and the many implications of migrants' self selection and the character of their deviance from the balance of the aged.

Related Issues

The Market for Retirement Community Housing

What is the potential market for housing in retirement communities? It may be fallacious to operate with conventional assumptions. Presumably we cannot use normal supply-demand curves to project market demand from given volume of supply, particularly for this age group. We cannot extrapolate the consumption patterns of the larger population to special subgroups such as the aged, especially when their income distribution differs significantly from that of the population as a whole. Instead, we may be wise to assume a greater elasticity of demand than we normally do, and try to stimulate demand through adjustment of supply.

First we must clarify the kind of demand we want to generate. We may then be able to tailor supply to elicit this, rather than simply equating demand and supply on possibly false assumptions about income distributions and the uniformity of expenditures within income classes. By carefully adjusting supply, we may create the conditions for older people to reapportion their incomes and change their patterns of housing consumption. By arranging supply differently, we may be able to increase demand and manage it more effectively; but this depends on a clear specification of demand as a set of socioeconomic objectives.

Furthermore, insofar as certain social ends are involved and we want to maximize people's choice of life pattern, we have to maintain an active resale market for retirement housing. This would allow people who have made mistakes to correct them—persons who, having bought homes in retirement communities, find that they cannot carry the financial burden or do not like the type of life. We must facilitate the exchange of these homes and the recovery of people's assets, perhaps by some sort of public holding arrangement. Such a technique may be more effective than raising the income level to expand the range of alternatives. Within this larger range, we may focus on different types of economic structures and institutions to maximize the choices open to different age groups among the retired. There is a whole array of

possible economic and social instrumentalities available to us for restructuring the lives of older people.

Is Income the Basic Problem?

Of course, such expanded economic alternatives in no way obviate the necessity of raising retirement income. These are not mutually exclusive; they are complementary means for the realization of various retirement ends. Older people have the lowest income of any adult age group and the highest incidence of poverty, no matter what income level is accepted as a cutting point. Therefore, it is important to study the effects of improved retirement income, especially if this is based on a comfortable rather than a subsistence living standard. Adequate income would allow retired persons to increase their direct participation in the market, enabling them to reenter markets from which reduced income has expelled them, or even to enter completely new markets they have never enjoyed. This would open up choices that precious few of them can exercise with their present resources.

One basic issue concerns the proportion of older people's noneconomic problems that would evaporate as their incomes increased. How many of their problems actually have solutions in markets from which the bulk of the aged are now excluded by limited income? We know, for example, that with successive increases of social security benefits some older parents who live with their adult children are enabled to rent apartments and live independently. Most of the housing problems of older persons may be essentially income problems. Satisfactory housing appropriate for their needs may be available on the market, but at prices that they cannot afford.

Similarly, would medical and health problems be significantly ameliorated by substantially greater income? This is the case in younger age groups, and there is no reason to suppose that comparable results would not apply to older people. By the same token, do other elements of satisfactory life style in retirement become significantly more accessible when income is drastically increased? Clearly, the retirees in the present study effectively purchased a pattern of life, possibly a new one. For less affluent retired persons, what might be the noneconomic consequences of significant economic improvement? While we may confidently infer some material benefits, we know little about other effects of increased income and the changes that may be realized in people's lives. We will presently return to another aspect of this.

An Experiment. It is possible to test some effects of increased income by supplementing incomes for members of one of two otherwise similar groups. For the sharpest test, subjects should be chosen from the lowest income levels. The most disadvantaged, those in the greatest

need, stand to gain the most. Hence, the effect of greater income on them should be strongest, and research results clearest.

This is buttressed by other considerations. Not only have they low incomes, but they also have the earliest retirement, the highest net retirement rates, the least education, and the least satisfaction in retirement. In contrast, higher income groups have later retirement, lower net retirement rates, higher education, and greater satisfaction in retirement. The groups with the least resources and the most need are the greatest prospective beneficiaries from such an experiment. (These same factors, incidentally, make them prime candidates for the highly structured activity programs normally found in retirement communities.)

As an alternative to unearned income supplements, members of the augmented income group conceivably might be employed in such a study. They could be paid to keep diaries and other records necessary for the research. However, a major objection can be raised that this procedure might contaminate the investigation. It would gear experimental group subjects' lives to research activities rather than to the spontaneous changes of expenditure, consumption patterns, and social activities that are the primary objects of interest. It should be possible to recover necessary information by other means, such as handling of respondents as a panel and reinterviewing them several times over a given period.

To be sure, a controlled study might have its difficulties (as well as its expense), but it presents no formidable methodological problems. Careful research design and proper controls should make an experiment on the effects of increased income quite feasible if the funds were made available.

A guaranteed minimum income program would provide opportunity for a natural experiment along these lines. The most deprived persons, including many of the aged, would be eligible for such a program. Effects of raising the incomes of the most disadvantaged could be examined in their life styles and welfare.

Nonmonetary Factors

Whether greater income would implement changes in life style, the kinds of changes that would be induced, and for whom, remain indeterminate. Several studies indicate that some older people are quite limited in their ability to exploit available opportunities.

One study in Grand Rapids, for example, showed that among the appreciable number of respondents who were bored and wanted new experience—who had adequate health, income and opportunity to pursue new experiences—a substantial proportion did not have the initiative to undertake anything. They were simply apathetic in the face of desires which, objectively, they could satisfy. In my own

study in Cleveland, among persons in residential settings which included lively social activities and a percolating social life among neighbors their own age, many were terribly lonely and bored, completely unable to participate as they wished in the active social life around them.

In both cases, some significant portion of the aged lacked self-starting qualities, interests, or personal resources that would enable them to capitalize on opportunities. Whether such people are simply apathetic or whether they lack initiative, the result is essentially the same: they cannot or do not exploit opportunities that are available to them. It is problematic whether higher income would have much effect on the pattern of their social lives, even though it might afford them economic security. Increasing the range of choices open to them might not change their styles of life.

The risks for such persons grow considerably in old age as they lose roles and as their responsibilities decline. For role demands, in themselves, contribute a great deal to the structure of people's lives and activities. Obligations impose certain requirements that fill out a schedule and round out activities. Certainly this is true in nonleisure patterns. To the extent that role demands structure people's lives, the lack of personal initiative may not be vital at younger ages, but the loss of responsibilities in old age may become crucial. For then people must make their own decisions and independently shape their activities because external requirements do not do this for them.

For the apathetic old person and the one lacking in initiative, the highly structured, pressure-cooker life of the retirement community is potentially most significant. A superannuated-adult residential camp with a social program director may compensate for the lacks of those aged who have few interests to supplement their lost roles or those who cannot become involved in social activities and other experiences on their own initiative.

Obviously, such aged persons are potentially the greatest beneficiaries of retirement communities. But it seems likely that the residents are quite different, and that they tend to be socially skilled and active persons who take full advantage of the social opportunities around them. Conceivably, the socially inept are among those who do not fit into the social pattern of these communities. They may need more help to become integrated than they are receiving.

It is an important research objective to establish the proportion and type of older people who have little initiative and are not capable of independent living once they have lost roles, responsibilities, contact with intimates, and other group memberships; and to consider them in relation to the development and utilization of retirement communities.

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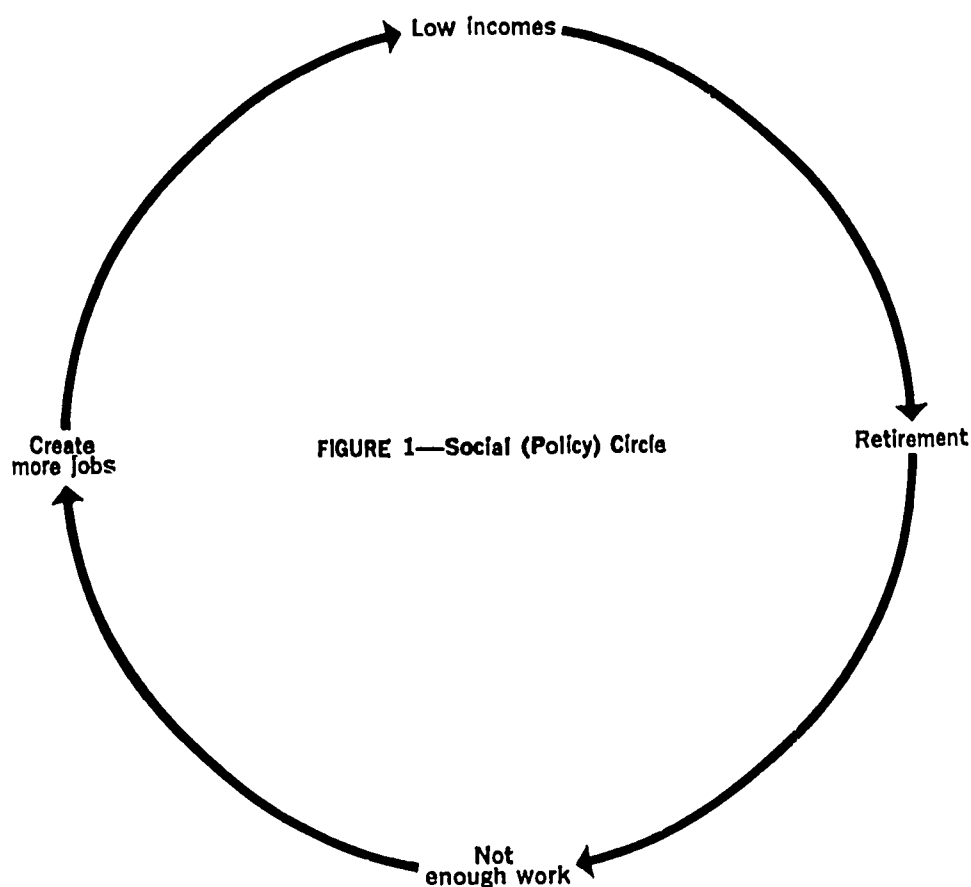
The Allocation of Leisure to Retirement ¹

Juanita M. Kreps, Ph. D.

Retirement is a luxury available to only a small proportion of the world's older people. In the United States only about one-fourth of the men aged 65 and over are now in the labor force, many of these on a part-time basis. Time free of work in old age, along with the shortened workweek and later entrance into the labor force, is possible because man can now produce enough goods and services to meet his family's needs in fewer than 12 hours a day—and in a worklife considerably shorter than one beginning at age 14 and ending with death. In less-productive economies it is not possible to subsist on the product earned in a short workweek nor is it possible to keep children in school until age 18. Output per man-hour is so low that all persons have to work practically all their lives. Leisure in any form invites starvation.

Most discussions of economic problems during retirement have begun with the proposition that incomes of aged persons are too low. Incomes are low, in turn, because of the cessation of work, which is often involuntary, resulting from the inability of the economy to generate enough jobs for all jobseekers. Solutions to the financial plight of the elderly therefore lie in policies which stimulate the rate of economic growth and the demand for labor, thereby increasing earnings during old age. The circle thus flows from statement of the problem (low incomes) to analysis of the cause (retirement), resulting from the lack of aggregate demand for labor, to solution (creation of more jobs and earnings). (See fig. 1.)

¹ These notes are taken from research done under a contract with the Social Security Administration, Division of Research and Statistics, and from an earlier paper prepared jointly with Prof. Joseph J. Spengler for the National Commission on Technology, Automation, and Economic Progress.

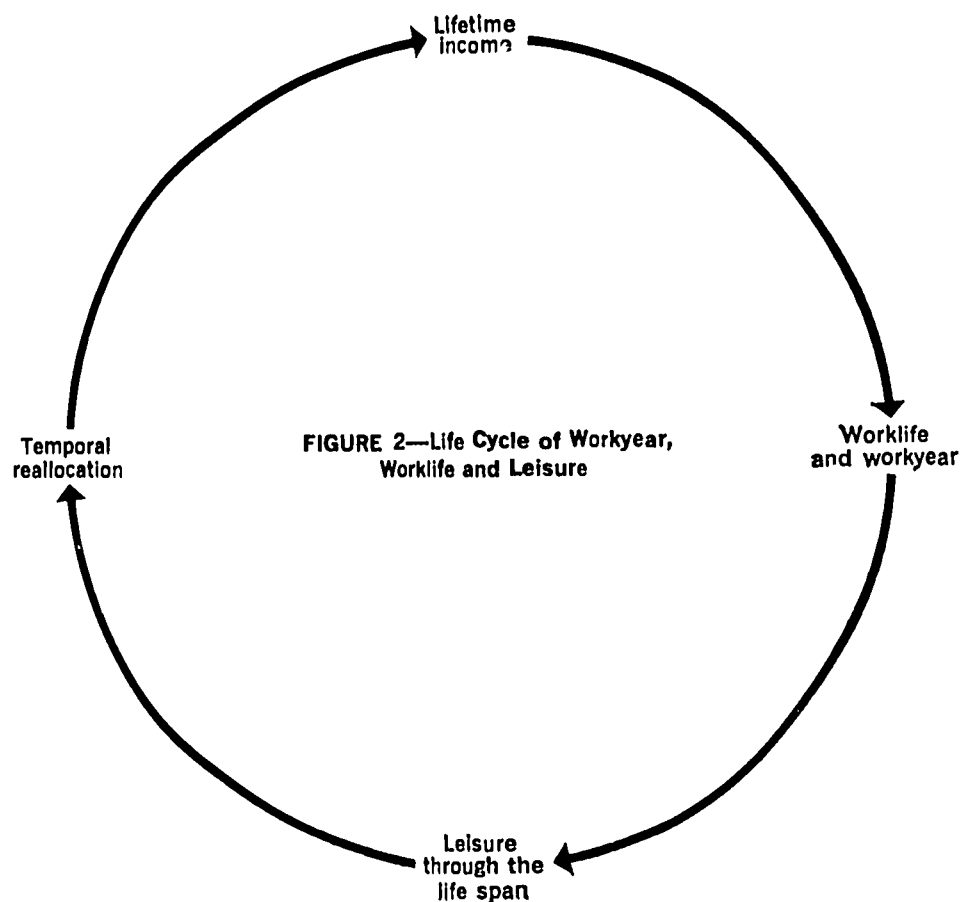


An alternative approach may be more realistic, given the secular decline in labor force participation of older men and the short-run problems of unemployment and underemployment of many groups in the economy. It may also have the advantage of emphasizing the value of free time at different stages in the life cycle and the way in which this value is likely to vary with its temporal allocation. Starting with an examination of lifetime income, it can be shown that for a given occupation this income will vary, depending largely on total working time. Length of worklife and workyear are thus important variables, determining both income and leisure through the life span. The timing of work (or leisure) is then seen as an important factor, affecting both the manner in which leisure is "paid for" and its utility to the recipient. Policy suggestions may involve some change in the forms of leisure. (See fig. 2)

The Amount and Timing of Leisure

Recent Trends

Growth in leisure time has, in longrun perspective, been an obvious corollary of growth in output per worker. Establishment of the 8-hour



day gave the most dramatic evidence of increasing leisure, but an equally significant change has occurred in the number of nonworking years. A male born in 1960 can expect to spend half again as many years free of work as the male born in 1900. Instead of 16 nonworking years he will have 25; his added life expectancy of 18½ years is divided about evenly between time in and time outside the labor force.

Of the additional 9 years spent outside the labor force, about 4 are being added to the educational and five to the retirement period of man's life.(1) While these developments have been reshaping the worklife, the workyear, too, has been shortened by more than 1,200 hours per year.² Despite these increases in the amount of free time, man's longer life expectancy enables him to work more hours in his

² A rough estimate of the annual increase in nonworking time between 1890 and the present is:

	<i>Hours</i>
Reduction in workweek (21.2 hours per week)	1,100
Increase in paid holidays (4 days)	82
Increase in paid vacations (6 days)	48
Increase in paid sick leave (1 week)	40
Total increase	1,220

lifetime than did his predecessor. The 1960-born male will probably log about 6,800 more hours than the male born in 1900.(2)

Projections

For purposes of analyzing retirement issues it is necessary to make some projections of future leisure trends, both in total amount and in the possible range of forms it may take. Assumptions must therefore be made as to the growth in productivity per man-hour, labor force size, etc. In table 1, the 1965 projections of gross national product (GNP) made by the National Planning Association (NPA) are used, the basic assumptions being: between 1965 and 1985 the growth rate will be 4.1 to 4.2 percent per year; population will grow by 1.5 percent annually; unemployment will average 4.5 percent.

In order to show potential GNP on the assumption of no change in working time—NPA estimates GNP on the basis of a decline in working time of one-half of 1 percent per year—the GNP figures used here, corrected for this decline, are slightly higher than the ones derived by the Association. Assuming no change in working time, the GNP at projected rates of growth would approximate \$1,544,500,000,000 in 1985, about $2\frac{1}{3}$ times its present level in 1960 dollars. Per-capita GNP would rise from \$3,181 to \$5,802, or more than 80 percent, despite the increased population size. Less rapid increases in aggregate and per-capita GNP than these projections indicate may occur, of course, particularly if shifts in labor force composition (from manufacturing to services) are sufficiently rapid to slow the overall rate of productivity growth.

These increases in total and per capita GNP are possible, then, if working time of roughly 40 hours per week for an average of 49 weeks per year is continued. At the other extreme, if one supposes that all growth except that amount necessary to hold per capita GNP constant at \$3,181 is taken in leisure time, the possible increases in free time are indicated in the remaining columns. The workweek could fall to 22 hours by 1985; or it would be necessary to work only 27 weeks of the year; or retirement age could be lowered to 38 years. If the choice were made to divert the new leisure into retraining, almost half the labor force could be kept in training; if formal education were preferred, the amount of time available for this purpose might well exceed the normal capacity to absorb education.

It is, of course, not likely that the workweek will drop to 22 hours or that retirement age will decline to 38 years. Nor is it probable that during the next two decades workers will continue on their present schedules, thereby taking all productivity gains in the form of a greater quantity of goods and services. If, instead, two-thirds of the output growth accrued as goods and services and one-third as leisure, GNP would rise to more than a trillion dollars by 1980, and to \$1.3 trillion

TABLE 1.—Prospective growth in productivity and possible uses of released time

Year	Possible increases in real GNP (1960 dollars)					Alternative uses of potential nonworking time				
	GNP (billions)	Per capita GNP	Total number of years	Retirement age	Length of workweek (hours)	Vacation time (weeks)	Labor force retrained ¹ (percent)	Years of extended education		
1965.....	\$627.3	\$3,181	65 or over.....	40	3		
1966.....	655.6	3,280	2,245,542	65.....	39	4	2.9	1.2		
1967.....	685.6	3,382	4,655,526	63.....	38	7	5.0	2.4		
1968.....	707.1	3,490	6,910,648	61.....	36	7	8.7	3.4		
1969.....	745.3	3,573	8,880,092	59.....	36	8	11.1	4.2		
1970.....	779.3	3,690	11,263,301	57.....	34	10	13.8	5.1		
1975.....	973.4	4,307	23,135,642	50.....	30	16	26.2	9.4		
1980.....	1,250.2	5,059	35,586,729	44.....	25	21	37.2	13.8		
1985.....	1,544.5	5,802	47,200,158	38.....	22	25	45.2	17.5		

¹ Figures are in addition to the number of workers now trained in public and private programs.

Source: GNP projections and employment data from National Planning Association, Report No. 65-1, March 1965. Labor force data for other computations taken from *Manpower Report of the President*, March 1965, p. 248, table E-2.

by 1985. Per-capita GNP would increase to more than \$4,400 by 1980 and to approximately \$5,000 in 1985. (See fig. 3.)

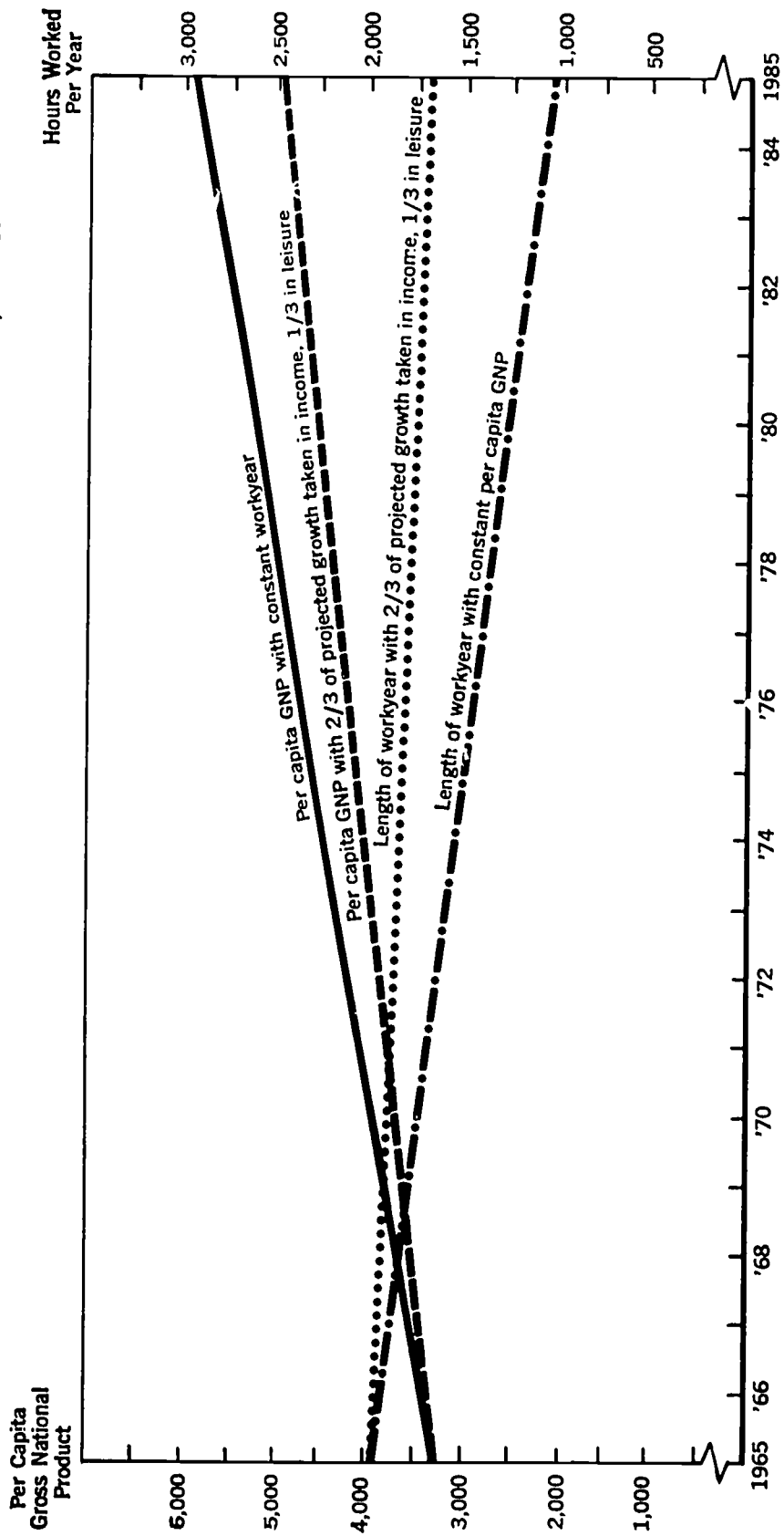
Options

The leisure which accounts for the remaining one-third of the growth potential could be distributed in any way or in a combination of several ways. Different priorities would be assigned by different persons. If it is conceded that present unemployment is due in some significant degree to qualitative deficiencies in the labor force, the first priority might be assigned to job retraining. Hence, a policy decision could be made to retrain a minimum of 1 percent of the labor force annually, taking the necessary time from that freed or released by the growth in productivity. A second order of preference might be an increase in vacation time, at least until an average of 1 additional week accrued to the worker. By 1968, these two goals—retraining 1 percent of the labor force and increasing vacation time by 1 full week—could be attained. If, after these achievements, some leisure gains were taken in the form of reductions in the workweek, working time per week could start by declining about one-half hour in 1969, the decline increasing to 2½ hours by 1980. (See table 1.)

Alternative allocations of leisure in the period 1980–85 might be as follows: Given a \$4,413 per-capita GNP in 1980, achieved with a 37½-hour workweek, a 48-week work year, and providing retraining for 1 percent of the labor force, society could choose to retrain much more heavily (4.25 percent of the labor force per year) or, alternatively, could add 1½ weeks per year in vacation. In 1985, when per-capita GNP should reach about \$5,000, the choice could be between retraining almost 7 percent of the labor force annually or taking an additional 3 weeks of vacation. Obviously, other choices could be made, involving a further reduction in the workweek, a lowering of retirement age, or an increased educational span for those entering the labor force.

The relevant considerations are at least threefold. One, the total amount of free time made available by the anticipated improvements in output per man-hour is extremely great, even when allowance is made for quite rapid rises in real GNP or even in per-capita real GNP. Two, the allocation of this leisure is in itself quite important, given the different degrees of utility man may associate with different forms of leisure. Three, the distribution of leisure, being quite unevenly spread over the entire population, requires further consideration. For although the unequal distribution of income among persons has received great attention, it might well be true that that portion of economic growth accruing to man in the form of leisure has in fact been apportioned much less evenly than has income. Questions relating to the total volume, the forms, and the distribution of leisure are of some significance in estimating future potentials for growth in output, and particularly in determining the composition of that output.(2)

FIGURE 3—Alternative Uses of Economic Growth Per Capita Gross National Product and Hours Worked, 1965–85



Source: GNP projections and employment data from National Planning Association, Report No. 65-1, March 1965. Labor force data for other computations taken from Manpower Report of the President, March 1965, p. 248, table E-2.

Retirement Leisure and Retirement Income

In different nations the free time that accompanies increased productivity is apportioned differently. In the two decades since the end of the Second World War the leisure pattern in certain Western European countries has given somewhat more emphasis to workyear reductions and less to worklife reductions than have developments in the United States.⁸ In allocating to the retirement period an increasing portion of our leisure time, we have in this country magnified the difficulties of maintaining adequate incomes in old age. By contrast, a more even distribution of free time though the worklife minimizes the problem of transferring income claims from workers to nonworkers.

There is some question, also, of the value of leisure conferred in old age (particularly if it is accompanied by sharply reduced incomes). Whereas free time during worklife might have great utility, any significant movement toward early retirement may confer leisure—supposedly a superior good—in such a way as to reduce its utility substantially. Assuming that some temporal reallocation of both working time and income appears appropriate, society must then confront difficult questions of work arrangements, part-time employment, changed vacation, and workweek schedules, etc. Alternatively, it can be argued that a lengthened education period would better absorb the leisure gain of productivity, or that frequent retraining throughout worklife would be a wise distribution. The sabbatical plan, long recognized as the professor's source of strength and sanity, may come to be equally useful to the blue-collar worker, claims that the released time is spent moonlighting notwithstanding.

Should society elect instead to push down the retirement age toward 60, the income-maintenance arrangements would need to be revamped to encompass the much longer period when earnings are small or non-existent. The aggregate size of the income transfer grows with the length of the retirement period, even if monthly retirement incomes stay at their present levels. Hence, it would become necessary to raise old-age survivor and disability insurance taxes, or to turn to general revenues, or to finance retirement more heavily from private pensions.

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⁸ Rough comparisons of work year and worklife patterns are drawn in a study recently prepared under a contract with the Social Security Administration.

Discussion Following Juanita M. Kreps' Paper

Ayers Brinser, Ph. D.

Retirement as a Form of Production

Dr. Kreps spoke in terms of leisure, rather than in other terms which might be used—such as nonwork or retirement—because she wanted to bring out its value. This value has been overlooked in discussions of the rate of growth of the American economy—which is not declining, as some people say, if one attaches any value to leisure. The satisfactions people derive from the ways in which they use their time are a gain to the economy which is not measured in the cost-benefit ratio. We should include them when we consider what might be called the net utility of retirement.

The issues examined in the discussion fall into five categories: (1) definition, (2) productivity effects of retirement, (3) gross national product as a measure of change in real output and welfare, (4) retirement as consumption, and (5) institutional changes required for the development of a retirement policy.

Definition of Retirement

An effort was made to define retirement as a ratio of voluntary expenditure of time to involuntary use of time. The purpose was to distinguish among retirement, unemployment, and underemployment. According to this definition retirement is the sum of the time spent in voluntary employment and in involuntary leisure. (Employment is voluntary when the reward is, at least in part, satisfaction created by the effort.) Retirement does not include time spent in involuntary

labor (work for wages only) or in enforced idleness, or time consumed by infirmity.

Time could be translated into dollars and a benefit-cost ratio could be constructed. It is also possible to construct the ratio so that it will provide a welfare index of retirement. In vastly oversimplified terms this can be stated in the following way. (This is a gross approximation, a first step toward the definitive statement that is needed.)

Definition of Terms

Given that:

R = Retirement

T = Time

E = Employment

L = Leisure

T_h = Time consumed by incapacity and poor health

v = Voluntary activity for money rewards

p = Voluntary leisure activity

i = Enforced leisure activity

The General Formula

The statement can be made that:

$$R = \frac{f \{ (E_p + L_p) - (E_i + L_i + T_h) \}}{T}$$

If R is positive, one is dealing with retirement. If R is negative, one is dealing with unemployment or underemployment.

One Application

To reduce this definition to monetary terms, as a first approximation the following equation might be used:

R_r = Value of retirement

E = Employment

L = Leisure

T_h = Cost of health payments or opportunity cost of poor health

K_r = Income payments during retirement

K = National income

$\frac{K_r}{K}$ = Real value of retirement income payments

m = market value of involuntary employment

v = value of voluntary employment + producer's surplus

p = willingness to pay for leisure time

L_i = reciprocal of L_p or loss

x = output

y = consumption

$$R_r = f \{ (E_p + L_p)^x - (E_m + L_i + T_h)^y \} \left(\frac{K_r}{K} \right)$$

There was considerable discussion about whether retirement and leisure are synonymous. The consensus seemed to be that leisure is uncommitted time whereas retirement, depending upon how it is structured, can yield a net increase in productivity or an increase in welfare or quality of life. This was only a partial answer. Not everyone who is retired would define his state in these terms because, for some, retirement as they experience it is less satisfactory than work. It was also pointed out that leisure was once a status factor whereas today work is a status factor. One piece of evidence for this is the fact that those with higher incomes tend to postpone retirement.

Retirement and Production

There was general agreement that present productivity and potential increases in production are adequate to sustain increased retirement. This will in some measure depend upon how retirement patterns are adapted to production. There will be significantly different effects, depending upon how retirement is distributed over time.

The greatest gains both in output and welfare would seem to come from spreading retirement periods over the whole work cycle. This would make possible combining retirement with retraining and with sabbatical leaves to improve the capacities of workers, both as producers and as consumers. To determine the net effect of distributed retirement, it would be necessary to estimate the costs and gains of greater mobility of the work force. Another problem arising from the distribution of retirement over the work cycle is how to maintain income during periods of retirement (retraining, sabbatical leaves, leisure). Related to this is the consequence such a pattern would have on the distribution of income among generations.

Measuring Productivity and Welfare

A different set of issues relate to the problem of measuring changes in productivity and welfare. Gross national product is not an adequate indicator of social output. It does not provide a measure of the value of increased leisure, although if retirement were converted to a productivity function the increased output could be measured with relative accuracy.

A second problem is to estimate the returns from social capital, such as public health programs, as a component of retirement income. The quality of retirement depends on both the level of retirement incomes or payments and the public services available to those who are retired.

Opportunity to invest in social capital is constrained by ideological commitments, as is indicated by the difference between willingness to invest in war compared with willingness to invest in education and health.

Related to this is the question of establishing criteria for allocating investment between the public and private sectors of the economy. Under the present system of constraints and incentives, certain goods and services with high social value are not produced even though they would contribute to a net gain. Given the comparatively weaker position of retired people in the market, and their need for social services, they may suffer relatively more than other groups under the present pattern of resource allocation.

Retirement as Consumption

A major consumption effect of retirement arises from the age-and-health-related aspects of retirement. The time preferences of the retired are different from those of members of the work force. It was agreed that needs do not decline with age, but that the composition changes significantly. The sense of independence derived from retirement income may be of greater value than the purchasing power of that income.

A guaranteed annual family wage may assure incomes, no matter how retirement periods are distributed over the work cycle, but there is a danger that this would lock the poor in a pocket. This point was made with special reference to the Negro. People who are, in effect, paid not to work may become a disadvantaged class with limited incentives and choices. On the other hand, payment for restricting production, which has been the case in agriculture, does not seem to have had that consequence. However, the rapid movement out of agriculture casts doubt on the reliability of agriculture as a test case.

Institutional Changes

Many of these issues are related to the institutional arrangements that control retirement policies. Any redistribution of time, income, or social services will require interference in the existing system. This would create administrative costs which could be offset by economies of scale. A case in point is the credit structure, which discriminates against older people. These risks could be spread to reduce the cost, but to do this requires new lending institutions. Another instance is labor union policy, which seems to be aimed at forcing early retirement to provide more jobs for younger workers.

The point was made that the unions, of necessity, are more concerned with maintaining positions of power than with the magnitude of benefits.

Summary

The discussion did not lead to any conclusions about retirement policy. It did define areas of relevance and indicate strategies for further investigation. Given an acceptable definition of retirement that is both operational and meaningful from the point of view of those who are retired, the central issue is to establish criteria for the distribution of retirement over the worklife cycle. These criteria would take into account the production and consumption consequences of retirement programs and the implications of alternative policies for institutional adjustment and development.

Summary and Prospect

Frances M. Carp, Ph. D.

The final session of the conference consisted of a general discussion of the retirement transition as a research domain. The need for attention to the retirement process as an important and neglected phase of human development had been emphasized in preceding sessions; it was underscored at the beginning of this one.

The discussion then turned to consideration of ways in which systematic investigation can be stimulated and fostered, and identification of substantive topics upon which research is most urgently needed and methodological problems which most impede progress.

Restatement of the Problem

The Gap in Knowledge

Studies in development cluster around critical periods—those during which dramatic shifts occur in the environment and striking changes in the individual. Adolescence, with its complex and often conflictive interplay of biologic, psychologic, and social changes, is a major research focus. A transitional period later in life receives scant attention. (It remains unnamed, reflecting the lack of interest and predestining inattention.) This is the period which bridges away from worker adult status as adolescence leads in to it.

In this period as in the earlier counterpart, major shifts in life pattern take place at all levels. During the latter transition the person experiences altered appearance, decline in sensory motor efficiency, reduction in stamina and endurance, accumulation of ailments, and changes in social press and social roles. Perhaps the most consistent forces at this life stage are the socioeconomic.

Though cessation of work is only one component of the transition, just as assumption of employment is one hallmark of the end of adolescence, it is an important one. When approaching so complex a subject matter, there is advantage in focusing initially on one facet. This is particularly true when, as here, relatively little is known about the variables and their interactions, and there is reason to expect that relationships among them may change.

A Problem or an Opportunity for Society

Throughout most of history man dreamed of release from work. Technologic achievements make this increasingly possible—ironically, at a time when civilization has glorified labor and material productivity. Increase in time free from work is occurring most markedly among older persons. The satisfactory use of this postwork leisure is difficult in a society oriented toward work, money, and youth.

One reason for the dearth of information regarding retirement phases of the life history is that significant numbers of retired people are a novelty. As the efficiency of our economy has increased, the age for retirement has gone down. Advances in medical science and care have increased greatly the chances of living to maturity and, to a lesser extent, longevity and the period of mature competence.

The combination of these economic and medical trends has created a new retirement-leisure period in the normal life history. The emergence of this new period provides opportunity for attainment to new levels of human development, with consequent benefits to individuals and to society. Conversely, years of obsolete existence are frustrating and degrading, and persons in them are burdens on society and may disrupt the development of younger generations. A quantitative increase in the retirement period, unaccompanied by qualitative improvements, is of questionable value.

The Research Domain

The social problem of retirement and the information gap in development converge to define an important research task: to study that period in human development during which the person leaves or is severed from the major work of his adult years. Retirement has significant implications for adult health and for the cultural and economic well-being of the Nation. Understanding of biological, psychological and social forces which underlie progression and retrogression during this period is crucial to fulfillment of its potential. Initially the focus is upon the determinants and consequences of departure from the work force, in full realization that cessation of work is only one of many interrelated variables which must be investigated.

Definition of Retirement

The Human Development Orientation. The term retirement has different meanings in different contexts. For example, it is a census descriptor, a manpower variable, an index of productivity, and a service area. The interest of this volume and of the conference which produced it lies in retirement as a phase of human development. Obviously, development cannot be understood outside the context in which it takes place. Therefore, the biological, psychological, and social determinants and consequences of retirement and behavior are relevant.

A Critical Period of Transition. In the human development context, retirement may be viewed as an event, a status, or a process. Interest centers first on *retirement as process*. Several factors contributed to this decision. First, "retirement" is a working title which will be replaced with a label descriptive of the broader transition in later maturity, when that transition is sufficiently well understood that such labeling becomes possible. The long-range goal is to understand the interplay of physiological, psychological, and social factors during the transition from worker adult to person in retirement.

Second, there is little evidence that the event of retirement is a decisive moment for most persons. Preparation for retirement and the process of retirement may begin months or even years prior to that date or they may follow. In all probability the process of retirement occurs over an extended period of time and does not transpire at any one moment. The duration of this period and its relationship to the event of job-leaving remain to be determined.

A third reason for focusing on retirement as process is that retirement as status is synonymous with the last eighth, quarter, third, or some other fraction of life. The underlying motive for developmental scientists' interest in retirement is to tease out one thread, at one important phase of the later part of life, which will provide research access to the complex, increasingly extensive period of later maturity. No doubt these years encompass several developmental phases. It was exactly to define a limited and therefore manageable "chunk" of this subject matter that the focus was taken on the retirement process. The transition from producer adult to the new end-of-life leisure state is a starting point for systematic investigation of human development in later maturity.

From a life history viewpoint it is known, at least in general terms, where the retiring person "came from" developmentally. As yet unknown is the nature of the retirement metamorphosis or its product. The way in which a person resolves this developmental crisis depends upon his behavior in the past, and it must have major bearing on the rest of his life and on the lives of those about him. Understanding of this critical period will necessarily involve consideration of subsequent life

stages, because solutions of the problems presented by retirement are most adequately evaluated in terms of suitability to those later periods.

There were and will be objections to use of the word "crisis." Retirement may be a reward or a relief, and some persons accomplish the adjustment without apparent strain. The same statements can be made about adolescence and birth. Crisis is used in the sense of turning point in development which marks the end of one relatively stable life phase and the transition into a new one, with the implication that the character of the transition will markedly affect subsequent behavior and experience.

Research Needs and Priorities

Within this substantive area of retirement so defined, what are the major and most pressing research needs? How can comprehensive and systematic understanding of this developmental period be furthered?

Theoretical Models

The most important impediment to *systematic* investigation of retirement is the lack of suitable theory systems. The most pressing need is for relevant conceptual formulations to guide research.

Science advances through successive, interlocking cycles of hypothetico-deductive reasoning and data collection. A theoretical model provides a framework for organizing existing knowledge. Disparate pieces of information become more meaningful when viewed in the relationships revealed by this organization. Redundancies are easier to perceive, as are inconsistencies, disagreements, and areas in which information is lacking. A research design derived from a conceptual model is likely to contribute more to the fund of knowledge than is a study which is not theory-directed, because the former takes advantage of what is known, organized in a meaningful way. Testing hypotheses derived from a theory system provides shortcuts to knowledge, and it advances understanding by the impact of empirical results on the theoretical model. Consequent revision of the model should sharpen research on the next cycle.

Peers, merit review groups, and editors of scientific journals give low marks to research which does not relate data collection to theory testing. In the absence of conceptual formulations regarding retirement, the need for scientific respectability tempts investigators to adopt or adapt theoretical systems which have proved useful in other contexts. Such adoption or adaptation should be provisional. Even when applicability has been verified, the danger remains that the investigation is concerned with nonessential issues or tangential variables. The relative weights of variables may be different; new parameters may be operant. An alternative and more sound approach is first to take a

hard look at the puzzling, complex phenomena of retirement and only afterward to bring to bear upon them the theory building capacities of the relevant disciplines.

The millenium may bring one general theory of retirement which accounts for all processes on all levels and is accepted by all disciplines. To meet today's needs, some diversity seems useful as well as necessary. Models must be built to accommodate available information and to provide systematic direction for further data collection and analysis. The first models may be quite limited in scope. Each may fall within a narrow interdisciplinary band or within a single discipline or subdiscipline.

This conference clearly demonstrated the excitement of interdisciplinary interaction and its capacity to erode preconceptions and to stimulate novel approaches and creative reintegrations of knowledge. However, interdisciplinary attempts at model building are severely handicapped, even among such a knowledgeable group as this, because of differences in technical jargons, viewpoints, and habits of thinking. The communication obstacle will be reduced as definitions of terms are made more explicit within each discipline. Interdisciplinary conferences and publications will be useful for cross-fertilization and to ease communication. Each theory builder should be aware of what is going on in related fields so that he can capitalize on progress within them, and in the hope of working toward a general theory. The developmental transition involves processes at all levels, biological, psychological, and social; and ultimately its understanding must be an interdisciplinary undertaking.

An Operational Description of the Retirement Process

Closely related to theory building is another critical need—that for a comprehensive and systematic description of the process of retirement. To provide a solid base for conceptual formulations, to clarify discrepancies between existing studies, and to guarantee more adequate design in future research, the parameters of the retirement process must be defined and their interactions described. At present there is not even an adequate description of who retires, when, and why.

As at any phase of life, it is important to understand how the person, as he moves through time, uses the capacities he has available to adapt to the situation in which he finds himself, and to determine how personal well-being and value to society can be increased. To achieve such understanding, several questions must be answered. What are the problems which retirement poses? What are the needs, capacities, and potentials for themselves and for society in this sector of the human resource?

Equally important, what are the characteristics of the context within which retirement occurs which interact with personal characteristics to affect the process? There is adequate evidence to show that even very old persons are responsive to environmental factors. For example, involuntary move from one nursing home to another raises mortality rate, (1) but voluntary move from substandard and isolated housing to a modern apartment house is associated with reduction in health complaints and increase in activity, sociability, and satisfaction with life. (2) The relationships between context variables and behavior variables need further specification, and optimal physical-social-emotional environments for retirement should be defined.

Finally, what is the range of resolutions of the retirement crisis, and what are the criteria against which they should be evaluated? Resolutions must be determined and assessed not only in terms of prevalence today, but also in light of medical and social trends and from the standpoint of personal and social worth. Adjustments must not be evaluated automatically against the value standards of young adult life; judgment of their utility must allow for the possibility of emergent values.

In addition to studies designed to test specific questions regarding the dynamics of the retirement process, systematic observation of the behavioral and experimental aspects of retirement in its natural state is sorely needed. Because the precipitants of the process and the beginnings of its incubation are not known, panels of adults at clearly preretirement ages should be selected and followed, in order to trace the process from its origins to its resolutions, and to discover the variety of forms it takes, the mechanisms involved, and the range of its resolutions.

Special Retirement Groups and Phenomena

Some groups of retiring persons and certain phenomena of retirement deserve special attention.

Elite Groups

In order to obtain optimal as well as normative views of retirement, "successful" retirees should be studied. In addition, social and medical forecasts suggest that future retirees will be in more favorable circumstances and that they will enjoy better health than persons retiring today. Therefore, special efforts should be made to identify and study the retirement of elite and advantaged groups.

Women

With increasing age, some sex differences probably become more, others less pronounced. Insofar as retirement is related to aging, consideration of these differences must be included in investigations into

retirement. In addition, retirement problems and patterns are quite different for men and women. As a result, for purposes of clarity and economy, most retirement research has been limited to males. Withdrawal from the labor force has, of course, been much more prevalent among men. Consequently, the social problem is larger, and the data are more extensive. However as more women participate in the labor force and retire from it, and as the definition of retirement is broadened, investigators should become increasingly concerned with retirement of women.

Early Retirement

If retirement age continues to decrease, what is early retirement today may be normal retirement in a few years. Therefore, studies should be made of early retirement and those who take part in it. Useful sources of data are available. For example, service men comprise a readymade pool of subjects on whom much background material is available. Comparisons could be made between those who choose early retirement and those who do not.

Multiple Careers

"Work after retirement" should be studied. One reason for liberalizing the social security age qualification for men was to make it possible for those who wanted to leave the labor force sooner, to do so. However, as the proportion of people receiving social security benefits has risen, the proportion of them who report earned income has risen also. Simultaneously, the proportion of part-time workers among employed persons 65 and older has been increasing, which is consistent with the view that most "working retired persons" hold part-time jobs. On the other hand, there are people who plan and execute truly "second careers." Economic pressures or other factors may distinguish between the part-time worker after retirement and the second careerist.

Preparation for Retirement

In general, retirement preparation programs seem to improve attitudes toward retirement. It remains to be determined which is more important, that attitudes be favorable or that expectancies be realistic. Criteria for judging success of preparation programs have not been strong. For example, programs have been judged successful because participants told the person responsible for the program that his efforts helped. This response tendency may indicate success of the program or kindness on the part of the recipient.

What are the effective elements of retirement preparation programs? A variety of activities have gone on under the title "retirement preparation" and a variety of measures have been used to assess their effectiveness. A more systematic approach must be taken, in which the dimensions of retirement preparation programs are discovered and

related to background factors and to retirement behavior and experience.

When should preparation for retirement begin? Courses on retirement are being introduced in colleges, high schools and even earlier, as well as in adult education programs, on campuses, on television, and in business and industry. What is the most appropriate timing of such instruction? This question may be related to determination of the incubation or gestation period of the retirement process. When do, or should, people begin to perceive the need for anticipating this life stage? Instruction may be most effective at a certain period of readiness.

Are formal retirement preparation programs the answer? An alternative hypothesis is that, if the end-of-life leisure period is to be satisfying and useful, leisure must be distributed and well used throughout the lifespan. Some of the new patterns of work and leisure which are appearing in our society provide natural laboratory settings for the testing of this hypothesis.

There is need for inventive thinking to provide a more varied and more sophisticated repertory of methodologies, from among which the investigator can select the one most appropriate to his purposes. This creative endeavor must take into account the newest developments in research design and statistical methodology, and the most recent advances in data processing facilities.

Comparative Studies. Research on the leisure later years is focused upon behavior which is in the process of change and which is influenced by various social and cultural factors. There is need, therefore, for comparative studies in which social class, racial, ethnic, and geographic variations are investigated, and for cross national and cross cultural studies.

Instrumentation and Standardization. In the social and behavioral sciences, almost all instruments and techniques have been developed and standardized for use with children, adolescents, or young adults. Their applicability to people of retirement age is not known, but is surely open to question. Adequate measurement of relevant variables will involve at least restandardization of existing instruments using older subject samples, and probably will require devising new instruments. During the conference it became apparent that medical standards which were set for young adults may also be inapplicable to persons of retirement age. At all levels, then, attention must be paid to the provision of appropriate measures and of standards for interpretation of results.

Methodological Considerations

Sampling

One weakness in the fund of knowledge concerning retirement is that studies have been done, by and large, on unusual groups. Retired

persons who are financially insolvent, ill, or poorly adjusted come to the attention of the community and are available as subjects for studies. It is hazardous to generalize these findings.

The study of retired persons in institutions or service programs is frequent because of their visibility and their availability. Yet it is the normal person in the population at large who is of greatest interest in most instances. We need to pay more attention to ways of sampling this population. Demographic studies should be carried out to delineate the nature of the leisure population so that representative samples can be drawn, and so that studies of special groups can be interpreted in context. Data banks should be developed, and investigators should share and pool information.

Methodologies

Longitudinal Versus Other Designs. The longitudinal study is, in many ways, obviously the best for studying preparation for retirement, realization of it, and reestablishment of the life pattern based on leisure. However, such studies are expensive and they involve methodological problems. The longitudinal approach cannot clarify the import of some developmental influences such as intergenerational differences and historical events (depression, war, etc.).

Another problem is the exaggerated loss of subjects because of life expectancy. Attention should be given to alternative ways of handling this subject loss. One is to substitute subjects to maintain the sample size. Another is to stimulate longitudinal studies by use of different age subjects in a given time period. (3) Each has advantages and drawbacks. Clarification of the issues involved and development of statistical procedures for handling them will greatly enhance research.

Conclusion

Retirement into the new end-of-life leisure period is a developmental process of major importance. Study of it deserves the highest priority among developmental scientists.

The most pressing need is for systematic statements of the retirement process which will guide research toward the building of theory systems. Closely related is the need for comprehensive description of the retirement process. The relevant characteristics of persons and of physical and social settings must be discovered and studied in their interactions, as they relate to the problems posed by retirement and to the outcomes of the retirement crisis. Future research designs must develop strategies to measure or to control all of these variables. Studies of select groups and special phenomena should be undertaken

as society produces variants of the retirement process. There is need for sustained attention to methodological problems which plague research in this area, for improvement and expansion of techniques and materials, and for establishment of suitable norms.

Retirement is a relatively new phase in human development. Study of it has a short history, and the major work lies ahead. At present questions far outnumber answers, and intriguing research topics are legion. The creative and energetic investigator will find this a fruitful and rewarding research domain.

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